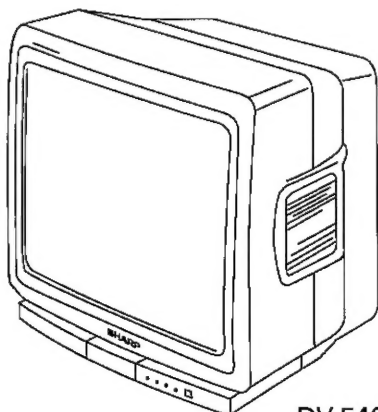
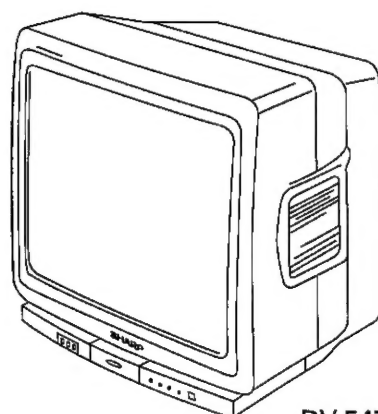


**SHARP****SERVICE MANUAL**

SEGTDV5465S//



DV-5465S



DV-5470S

**PAL/SECAM SYSTEM  
COLOUR TELEVISION****4BS-B Chassis****DV-5465S****MODELS DV-5470S**

In the interests of user-safety (Required by safety regulations in some countries) the set should be restored to its original condition and only parts identical to those specified should be used.

**CONTENS**

	Page		Page
• ELECTRICAL SPECIFICATIONS .....	2	• PRINTED WIRING BOARD ASSEMBLIES .....	11
• IMPORTANT SERVICE NOTES .....	3	• SCHEMATIC DIAGRAM AND	
• SERVICE ADJUSTMENT .....	4	WAVEFORMS .....	14
• SOLID STATE DEVICE BASE DIAGRAM .....	8	• BLOCK DIAGRAM .....	23
• CHASSIS LAYOUT .....	9	• REPLACEMENT PARTS LIST .....	26

**SHARP CORPORATION**

## ELECTRICAL SPECIFICATIONS

Power Input ..... 220—240 V AC 50 Hz  
Power Consumption ..... 60 Wh

Audio Power Output Rating ..... 4 W (MPO) ×2  
Speaker ..... 10 cm Round ×2 pcs  
Voice Coil Impedance ..... 8 ohms at 600 Hz

Convergence ..... Self Converging System  
Focus ..... Bi-Potential Electrostatic  
Sweep Deflection ..... Magnetic

### Intermediate Frequencies

- Picture IF Frequency ..... 38.9 MHz
- Sound IF Carrier Frequency ..... 33.16/33.4 MHz
- Colour Sub-Carrier Frequency ..... 34.47 MHz  
(Nominal)

### Aerial Input Impedance

VHF/UHF ..... 75 ohm Unbalanced  
Tuning Ranges ..... 48.25 MHz thru 855.25 MHz  
CATV Special Channels

*Specifications are subject to change without prior notice.*

## WARNING

The chassis in this receiver is partially hot. Use an isolation transformer between the line cord plug and power receptacle, when servicing this chassis.

To prevent electric shock, do not remove cover. No user — serviceable parts inside. Refer servicing to qualified service personnel.

## IMPORTANT SERVICE NOTES

Maintenance and repair of this receiver should be done by qualified service personnel only.

### SERVICING OF HIGH VOLTAGE SYSTEM AND PICTURE TUBE

When servicing the high voltage system, remove static charge from it by connecting a 10 k ohm Resistor in series with an insulated wire (such as a test probe) between picture tube ground tag and high voltage lead. (AC line cord should be disconnected from AC outlet.)

1. Picture tube in this receiver employs integral implosion protection.
2. Replace with tube of the same type number for continued safety.
3. Do not lift picture tube by the neck.
4. Handle the picture tube only when wearing shatterproof goggles and after discharging the high voltage completely.

### X-RAY

This receiver is designed so that any X-Ray radiation is kept to an absolute minimum. Since certain malfunctions or servicing may produce potentially hazardous radiation with prolonged exposure at close range, the following precautions should be observed:

1. When repairing the circuit, be sure not to increase the high voltage to more than 30.0 kV, (at beam 0  $\mu$ A) for the set.
2. To keep the set in a normal operation, be sure to make it function on 25.5 kV  $\pm$  1.5 kV (at beam 1100  $\mu$ A) in the case of the set. The set has been factory — Adjusted to the above-mentioned high voltage.  
∴ If there is a possibility that the high voltage fluctuates as a result of the repairs, never forget to check for such high voltage after the work.
3. Do not substitute a picture tube with unauthorized types and/or brands which may cause excess X-ray radiation.

### BEFORE RETURNING THE RECEIVER

Before returning the receiver to the user, perform the following safety checks.

1. Inspect all lead dress to make certain that leads are not pinched or that hardware is not lodged between the chassis and other metal parts in the receiver.
2. Inspect all protective devices such as non-metallic control knobs, insulating fishpapers, cabinet backs, adjustment and compartment covers or shields, isolation resistor-capacity networks, mechanical insulators etc.

# SERVICE ADJUSTMENT

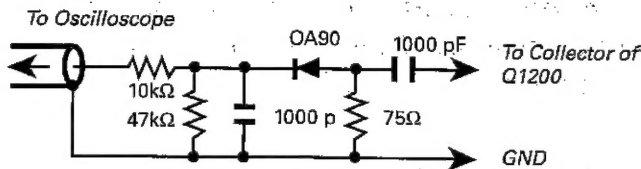
## PIF/SIF/AGC/G2 Adjustment

### 1. Trap Adjustment

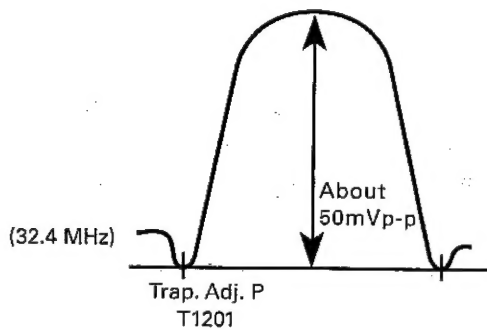
Adjusting Point

☐ **T1201: Trap coil (Adj.-P Trap)**

1. Connect sweep generator output to IF in (FA (1)).
2. Connect response cable with detector to collector line of Q1200 (see diagram).



3. Adjust T1201 (Adj.-P Trap) so that trap is (32.4 MHz).



### 2. VCO Adjustment

Adjusting Point

☐ **T1202: VCO adjust coil**

1. Apply DC 2.5 V to pin (25) of IC1200 (PIF-AGC).
2. Feed the following signal to pin (1) of connector (FA) in IF unit.
  - Frequency: 38.9 MHz (CW)  $\pm$  5 kHz
  - Level: approx. 85 dB
3. Adjust T1202 so that voltage at pin (7) (AFT output) of connector (FA) in IF unit is  $2.5 \pm 0.2$  V.

### 3. Separation Adjustment

Adjusting Point

☐ **R1219: Separation control**

1. Receive the following signal from IGR stereo signal generator.
  - Video Signal: Colour bar (87.5% mod.)
  - Stereo Mode: L (unmodulated)  
R (400 Hz modulated)

\* Make sure the unit is in the stereo mode with OSD (On-Screen Display) on.
2. Terminate pin (3) (audio L output) of 21-pin connector with 10 kΩ impedance. Adjust separation control (R1219) until 400 Hz output waveform becomes minimum.

### 4. RF AGC Adjustment

Adjusting Point

☐ **R1216: RF AGC control**

1. Receive "COLOUR BAR" signal.
  - signal strength: 53 dB (terminated with 75Ω)
2. Connect DC voltmeter to Test Point TP1200 (RF AGC).
3. Set AGC control (R1216) to maximum position (memory).
4. Adjust R1216 to obtain voltage of 0.1 V below maximum voltage (step 3).

### 5. G2 Adjustment

1. Receive "MONOSCOPE PATTERN" signal.
2. Connect DC voltmeter with Test probe attenuator (+ 1000) to G2 on PWB-B.
3. Adjust Screen control to obtain 700 V on G2.

### 6. Focus Adjustment

1. Receive "MONOSCOPE PATTERN" signal.
2. Adjust Focus control to have best focus at the central area of CRT screen.

### 7. 110 V Adjustment

1. Receive "MONOSCOPE PATTERN" signal.
2. Connect DC voltmeter to TP700.
3. Adjust the R755 until the TP700 voltage becomes  $100 \text{ V} \pm 0.5 \text{ V}$ .

## ■ SERVICE MODE FUNCTION

This mode function is provided to assist with the settings of those adjustments that may vary from one PictureTube to another, or between models.

### In order to use the Service Mode

1. Connect Test Pattern signal to antenna terminal.
2. Press main switch to off.
3. Press  $\Delta$  V and CH  $\Delta$  buttons and main switch to on simultaneously.
4. —SERVICE SOFTWARE— will appear on screen.

The required adjustments can then be made from the Remote Control Unit.

The only buttons required are the following:

$\Delta$  CH V for movement in adjustment options menu;  $\Delta$   $\Delta$  V are used to carry out an adjustment in said menu; ON/OFF is used to memorize a new adjustment.

Adjustment menu is as follows:

- SERVICE SOFTWARE
- CROMA-LUMA DELAY
- VERT. SHIFT
- HOR. SHIFT
- VERT. BREATHING
- VERT. AMPLITUDE
- S-CORRECTION
- RED REFERENCE
- GREEN REFERENCE
- BLUE REFERENCE
- ALTER NVM POS 00 00
- ALTER NVM VAL 00 00
- AUTO INSTALLATION
- OPC VALUE (DV-5470S only)

Having finalized adjustments, to exit service mode, press main switch to off.

### Adjustment Note:

The procedure for making adjustments to Vertical Corrections is as follows:

- Adjust S-CORRECTION
- Adjust VERT. SHIFT
- Adjust VERT. AMPLITUDE

# **GEOMETRY ADJUSTMENT PROCEDURE**

## **CHROMA-LUMA DELAY**

- Receive Philips pattern signal.
- When volume-up button is pressed, luma phase delays.
- When volume-down button is pressed, chroma phase delays.
- Adjust the Chroma-Luma delay.

## **VERT. SHIFT**

- Receive Philips pattern signal.
- When volume-down button is pressed, picture moves up.
- When volume-up button is pressed, picture moves down.
- Adjust the Vertical location to obtain picture centering (fig. 1).

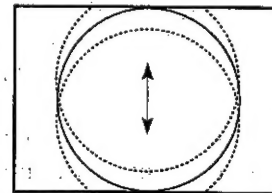


Fig. 1

## **HOR. SHIFT**

- Receive Philips pattern signal.
- When volume-up button is pressed, picture moves to the left.
- When volume-down button is pressed, picture moves to the right.
- Adjust the horizontal location to obtain picture centering (fig. 2).

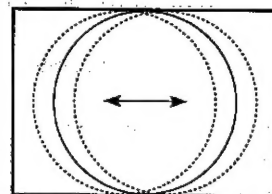


Fig. 2

## **VERT. AMPLITUDE**

- Receive Philips pattern signal.
- When volume-up button is pressed, vertical size of picture increases.
- When volume-down button is pressed, vertical size of picture decreases.
- Adjust the vertical size to obtain overscan (fig. 3).

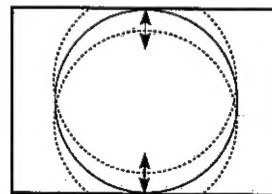


Fig. 3

## **S-CORRECTION**

- Receive Philips pattern signal.
- When volume-up button is pressed, upper and lower scanning decreases, and center scanning increases.
- When volume-down button is pressed, upper and lower scanning increases, and center scanning decreases.
- Adjust the S-correction to obtain a balance between upper, lower and center (fig. 4).

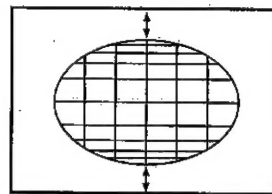


Fig. 4

The following adjustments are only required when the Picture Tube is changed.

### RED REFERENCE / GREEN REFERENCE / BLUE REFERENCE

- Adjust G2.
- Tune in white pattern.
- Adjust colour to minimum.
- Position colourmeter in the center of screen.
- Using brightness and contrast buttons, select a luminance of  $\approx 120$  NITS.
- Operate again in Service Mode and select location RED REFERENCE / GREEN REFERENCE / BLUE REFERENCE to obtain colour coordinates:

$$X = 0.290 \pm 0.015$$

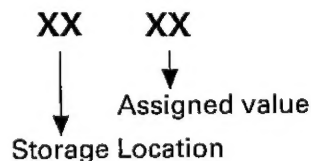
$$Y = 0.284 \pm 0.015$$

- Exit Service Mode and check colour coordinates 'X' and 'Y' at 20 and 120-NITS. It may be necessary to repeat procedure.

#### NOTE:

Locations: RED REFERENCE alter 'X' coordinate; GREEN REFERENCE alter the 'Y' coordinates; BLUE REFERENCE alter the 'X' and 'Y' coordinates.

#### ALTER NVM POS



When V  $\triangleleft$   $\triangle$  buttons are pressed, alter Storage Location.

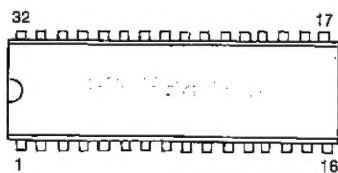
#### ALTER NVM VAL



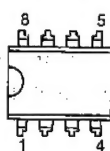
When V  $\triangleleft$   $\triangle$  buttons are pressed, alter Assigned value.

# SOLID STATE DEVICE BASE DIAGRAM

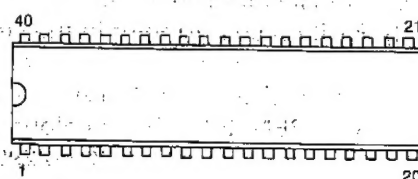
CH-IX1412CJST  
CH-IX1412CJSU



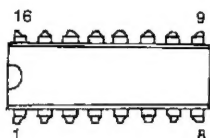
CH-IX1456CJT0  
CH-IX1456CJT1  
VHIUPC358C/-1



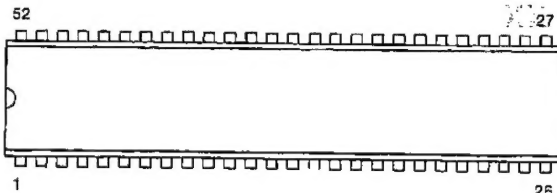
RH-IX1473BMZZ  
RH-IX1481BMZZ



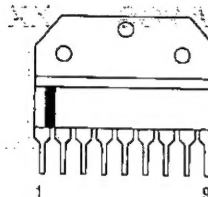
RH-IX1595BMZZ



RH-IX1567BMZZ



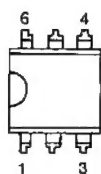
RH-IX1424BMZZ  
RH-IX1448BMZZ



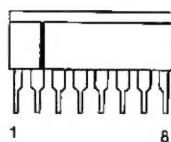
RH-IX1163BMZZ



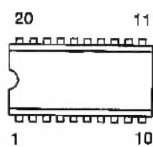
RH-FX0101BMZZ



VHILA7016/-1

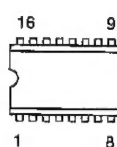


RH-IX1485BMZZ



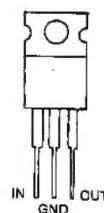
(SMD COMPONENT)

RH-IX1474BMZZ  
RH-IX1475BMZZ

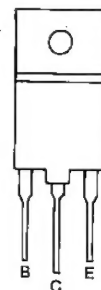


(SMD COMPONENT)

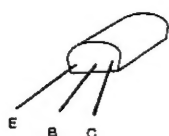
VHIKA7805PI-1



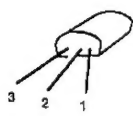
VS2SD1554//2E



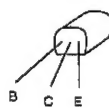
RH-TX0104BMZZ  
RH-TX0102BMZZ  
RH-TX0106BMZZ



VHIKIA7045P-1



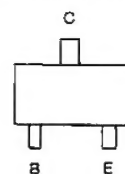
RH-TX0107BMZZ  
RH-TX0118BMZZ  
VS25C227-D1A



RH-TX0119BMZZ

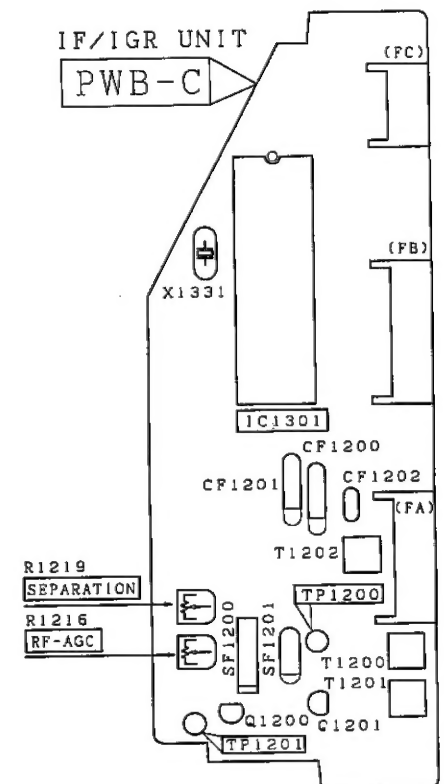


VS2SA1037KQ-1  
VS2SC2412KQ-1  
(SMD COMPONENT)



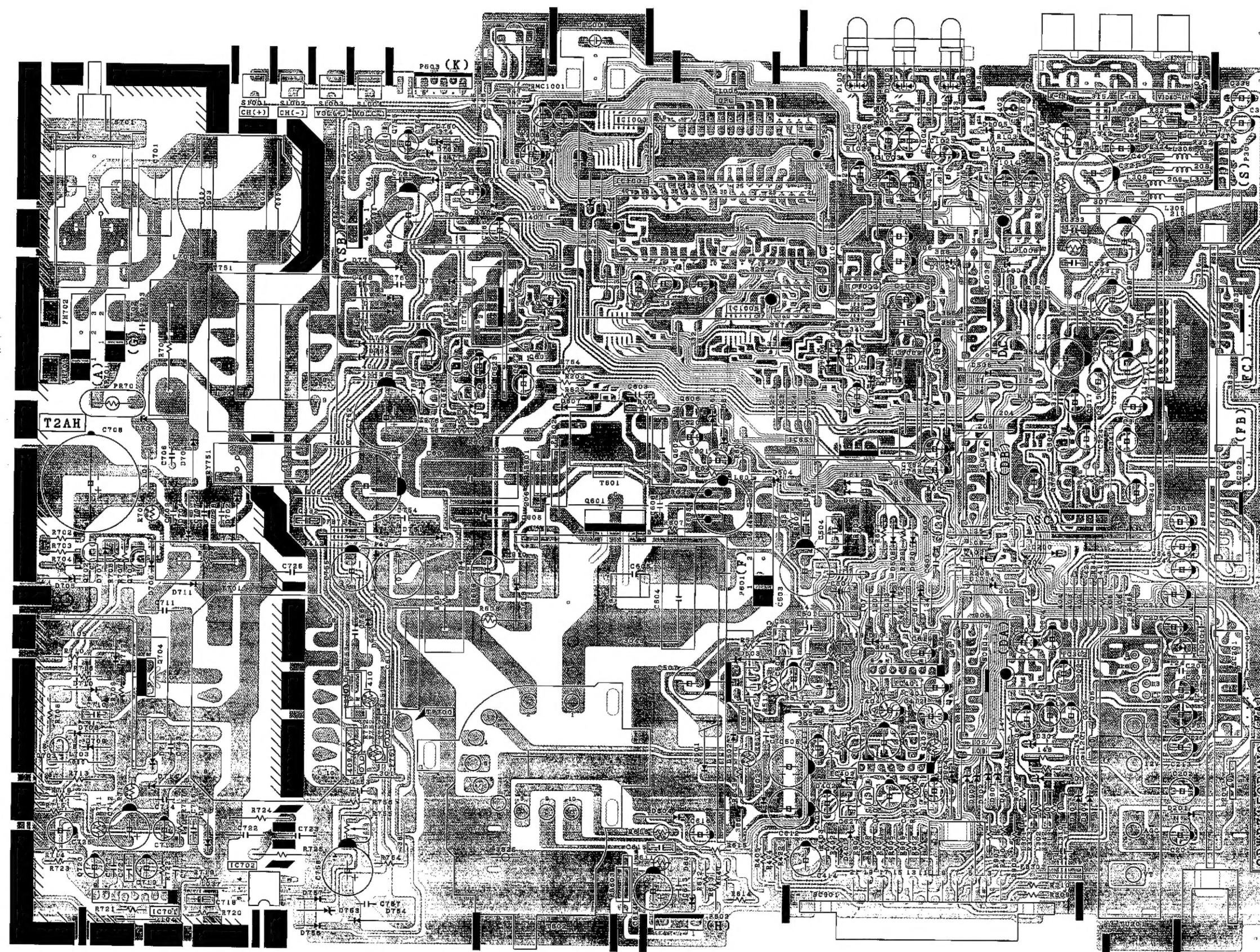


A
E
C
D
E
F
G
H



## PRINTED WIRING BOARD

SECRET






## DESCRIPTION OF SCHEMATIC DIAGRAM


### SAFETY NOTE:

1. DISCONNECT THE AC PLUG FROM THE AC OUTLET BEFORE REPLACING PARTS.
2. SEMICONDUCTOR HEAT SINKS SHOULD BE REGARDED AS POTENTIAL SHOCK HAZARDS WHEN THE CHASSIS IS OPERATING.

### IMPORTANT SAFETY NOTICE:

PARTS MARKED WITH "Δ" (  ) ARE IMPORTANT FOR MAINTAINING THE SAFETY OF THE SET. BE SURE TO REPLACE THESE PARTS WITH SPECIFIED ONES FOR MAINTAINING THE SAFETY AND PERFORMANCE OF THE SET.

### SERVICE PRECAUTION:

THE AREA ENCLOSED BY THIS LINE (  ) IS DIRECTLY CONNECTED WITH AC MAINS VOLTAGE. WHEN SERVICING THE AREA, CONNECT AN ISOLATING TRANSFORMER. BETWEEN TV RECEIVER AND AC LINE TO ELIMINATE HAZARD OF ELECTRIC SHOCK.

### NOTE:

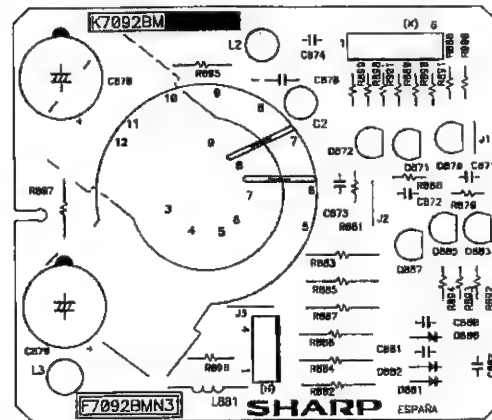
1. The unit of resistance "ohm" is omitted (K=1000 ohms, M=Megaohm).
2. All resistors are 1/8 watt, unless otherwise noted.
3. All capacitors are  $\mu\text{F}$ , unless otherwise noted ( $P=\mu\mu\text{F}$ ).
4. The capacitor with Part No. RC-FZ9XXXBMNJ is designed to withstand 63V.

### WAVEFORM MEASUREMENT CONDITIONS:

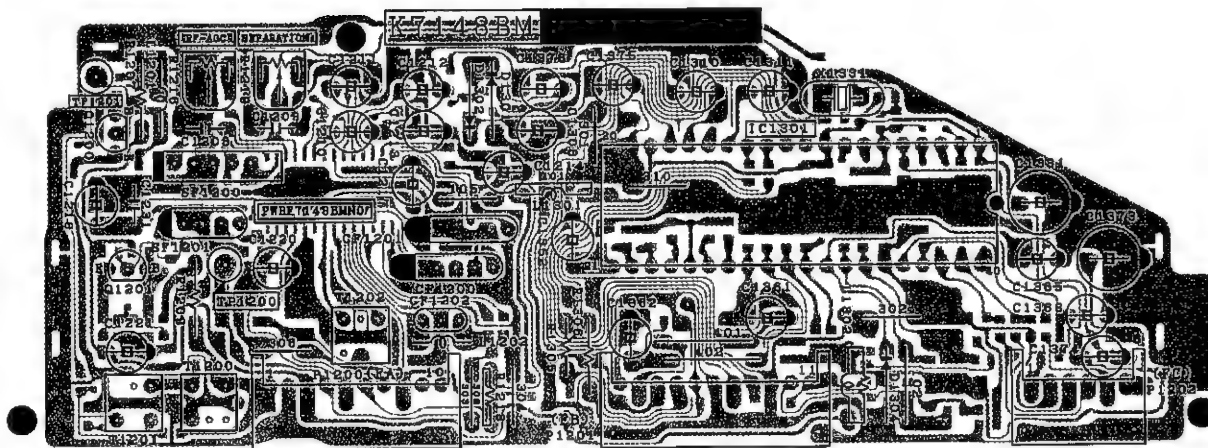
Colour bar generator signal of 70 dB from RF input.

### CAUTION:

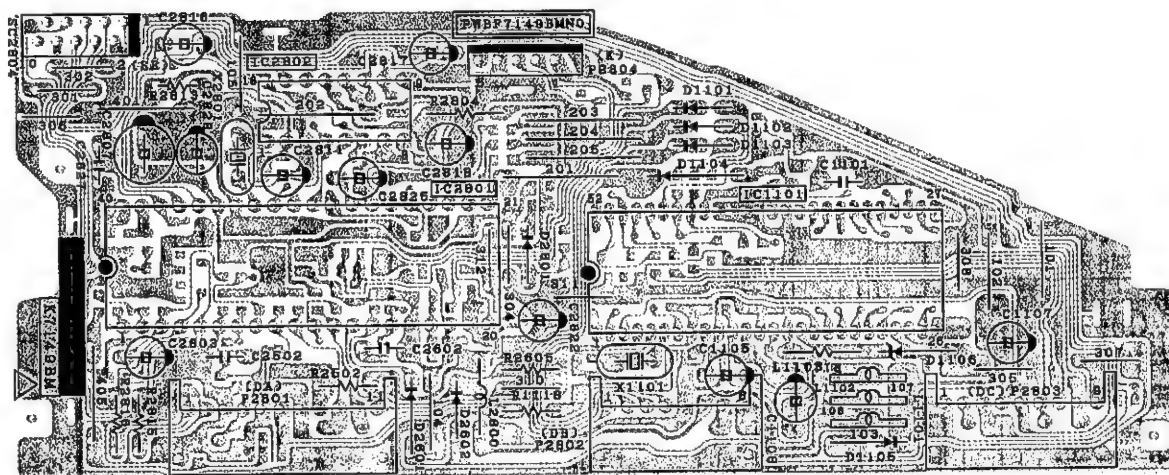
This circuit diagram is original one, therefore there may be a slight difference from yours.



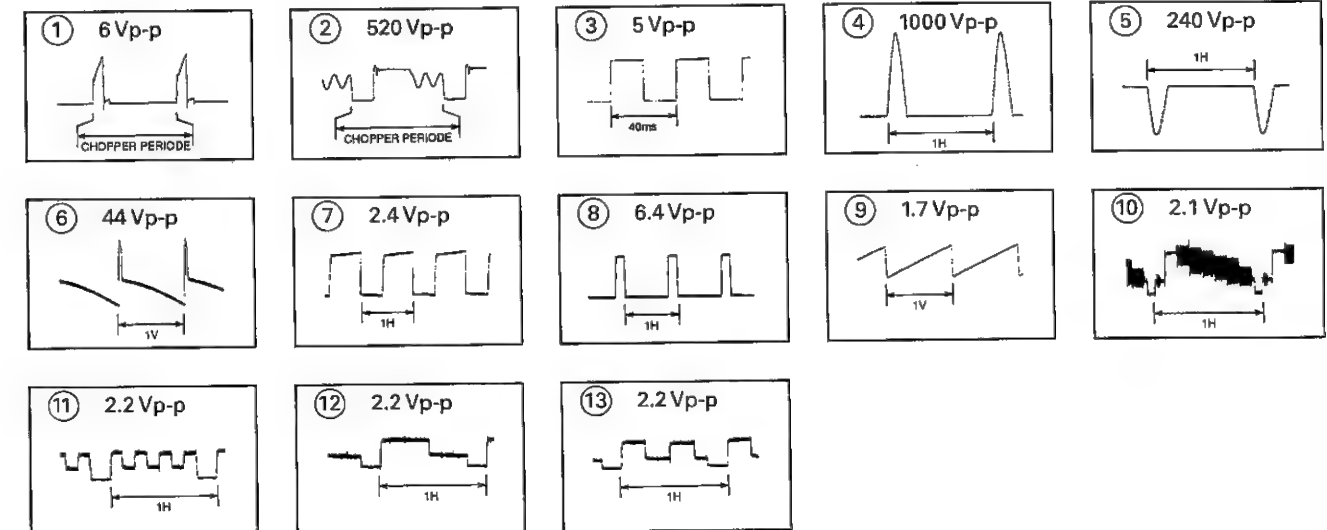
PWB-B



PWB-C



PWB-D



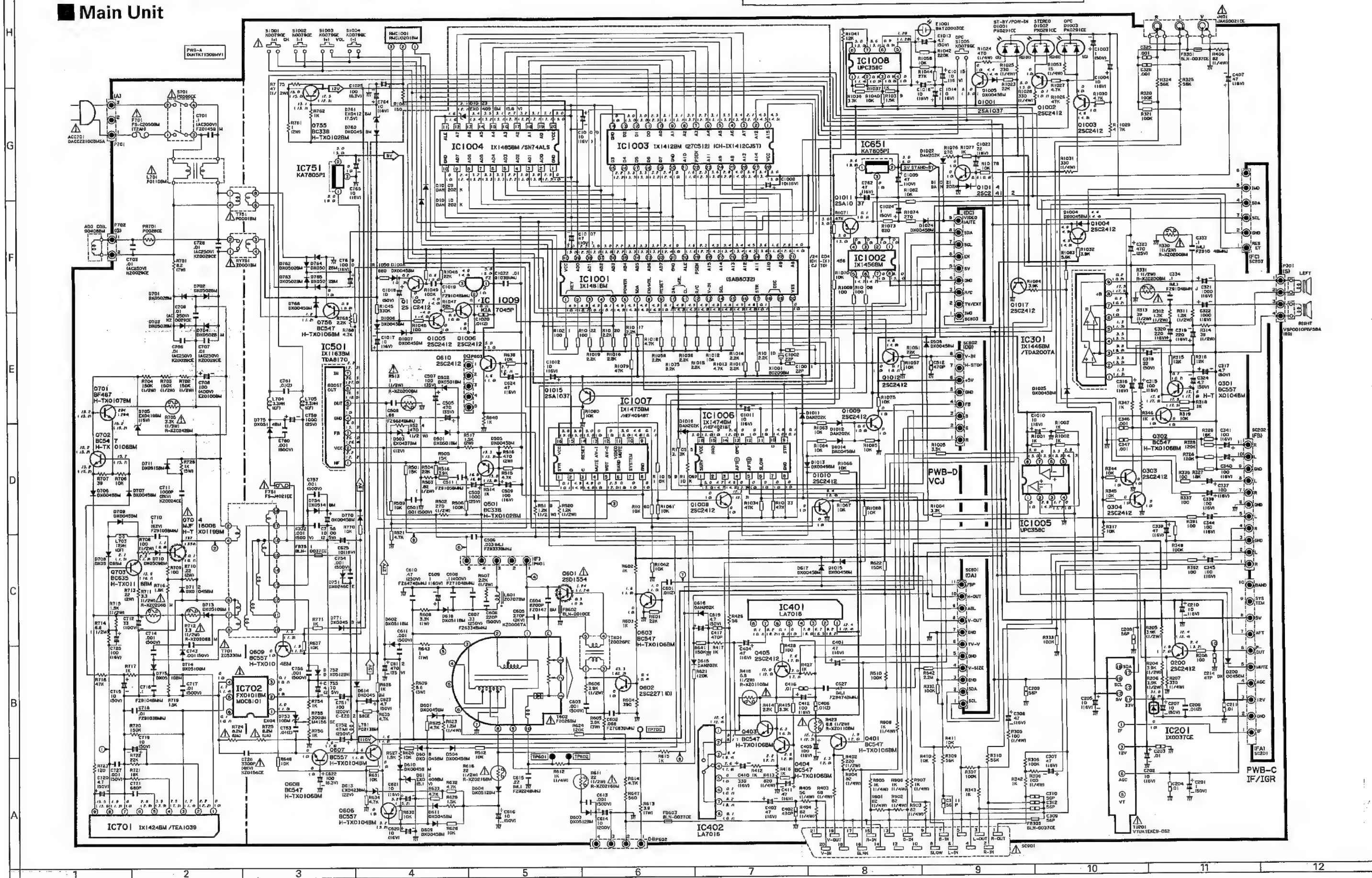




## MODEL DV-5470S SCHEMATIC DIAGRAM


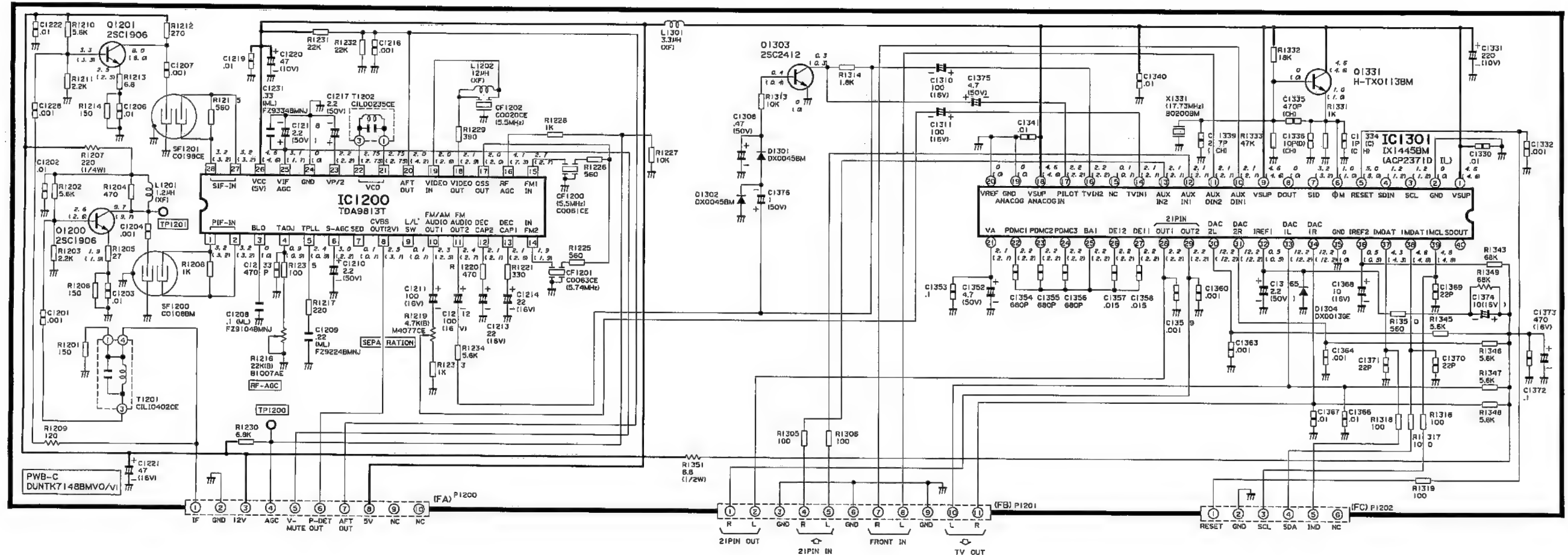
## ■ Main Unit

Note: The symbol  means a resistor of 1/16 W.




## MODELS DV-5465S and DV-5470S SCHEMATIC DIAGRAM

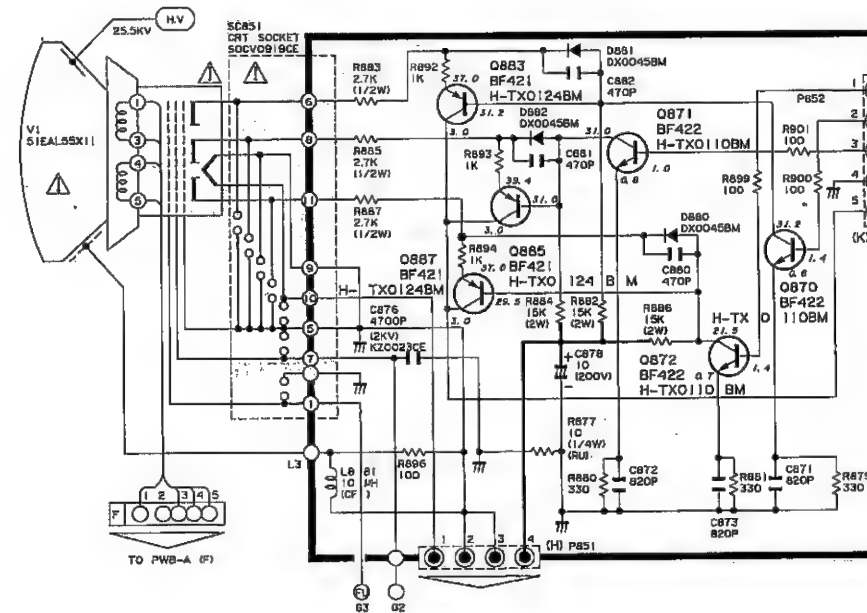
IF/IGR Unit

Note: The symbol  means a resistor of 1/16 W.

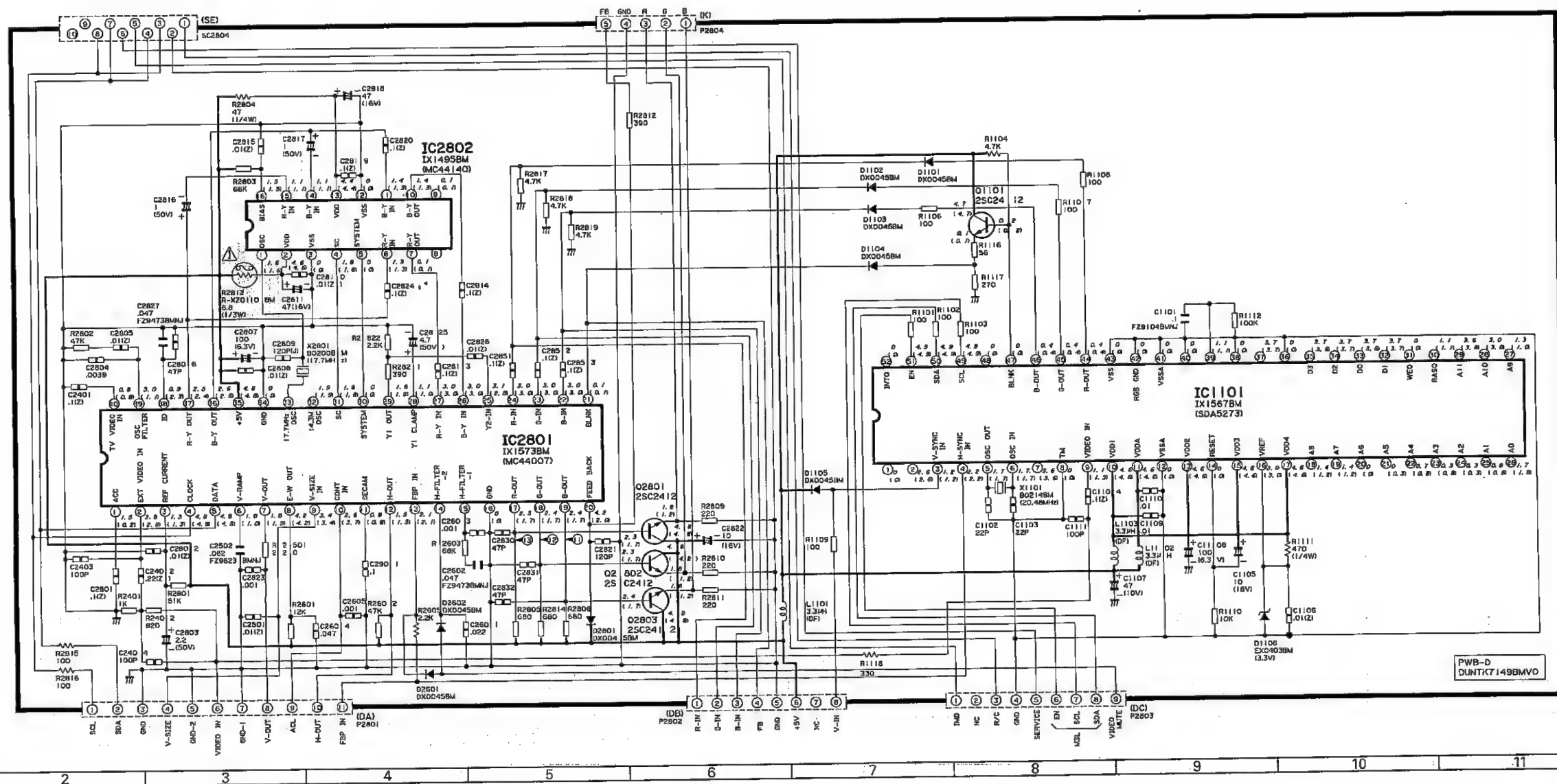
## MODELS DV-5465S and DV-5470S SCHEMATIC DIAGRAM

### ■ CRT Socket and VCJ/TEXT Unit

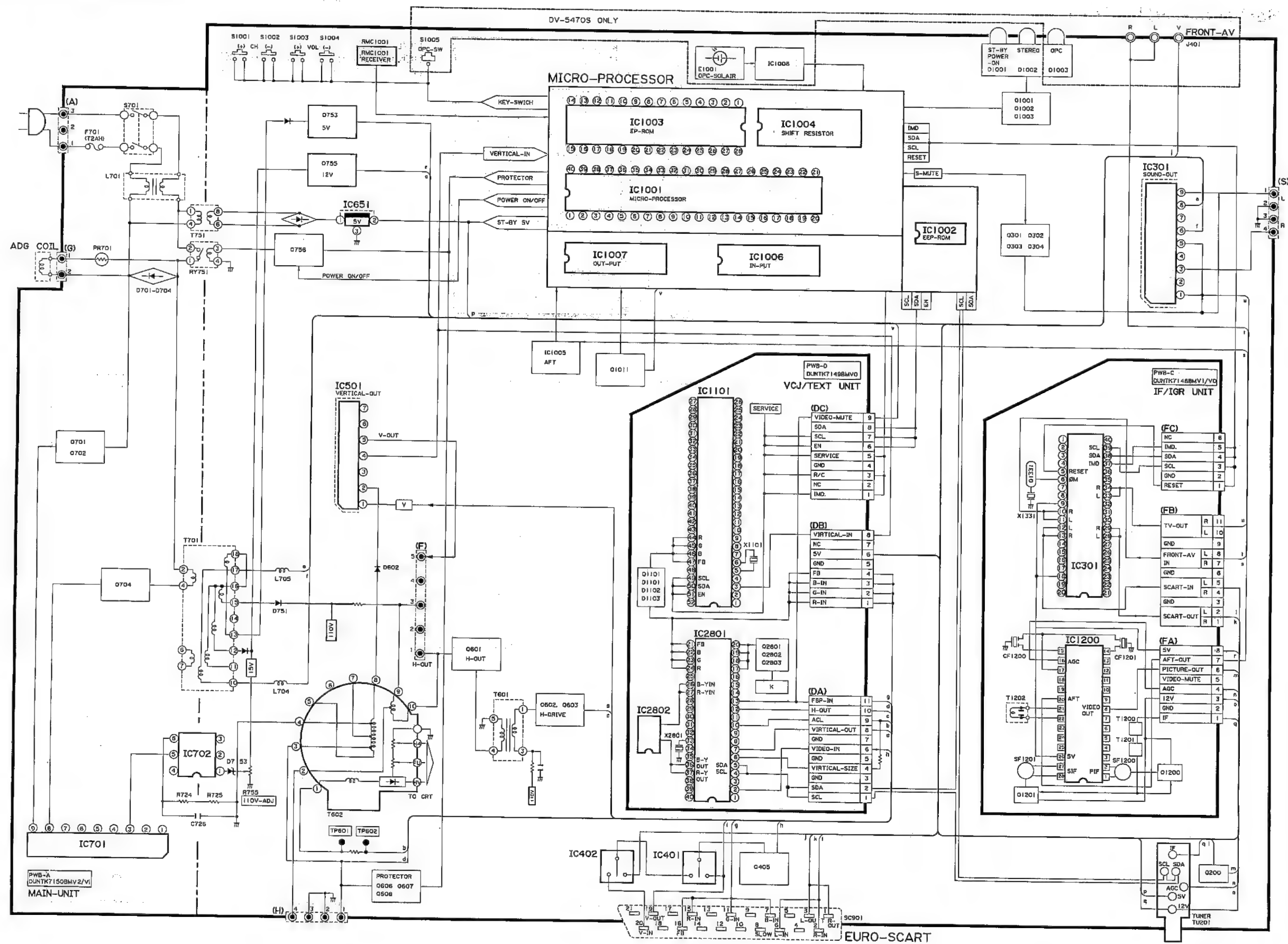
Note: The symbol  means a resistor of 1/16 W.



PWB-B (CRT UNIT)  
DUNTK7092BMY7 (DV-5470S)  
DUNTK7092BMZ3 (DV-5465S)



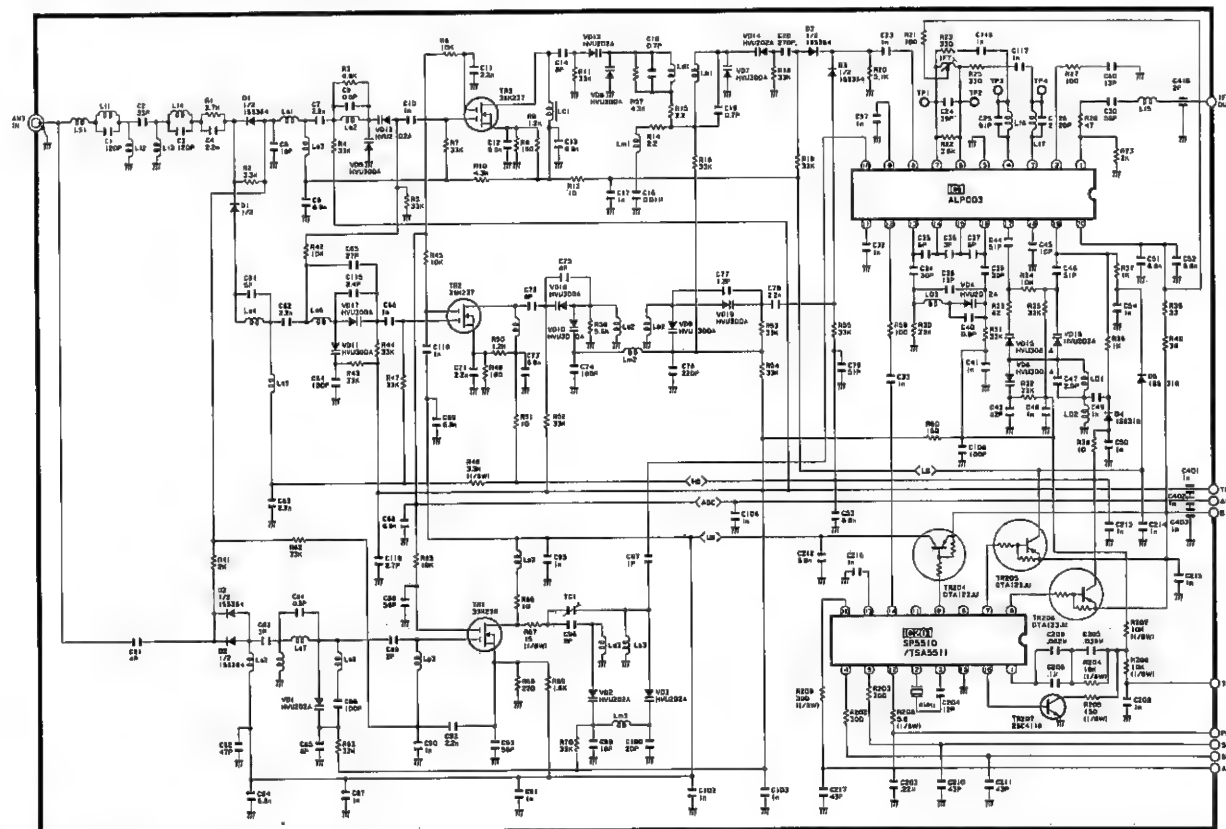
# BLOCK DIAGRAM



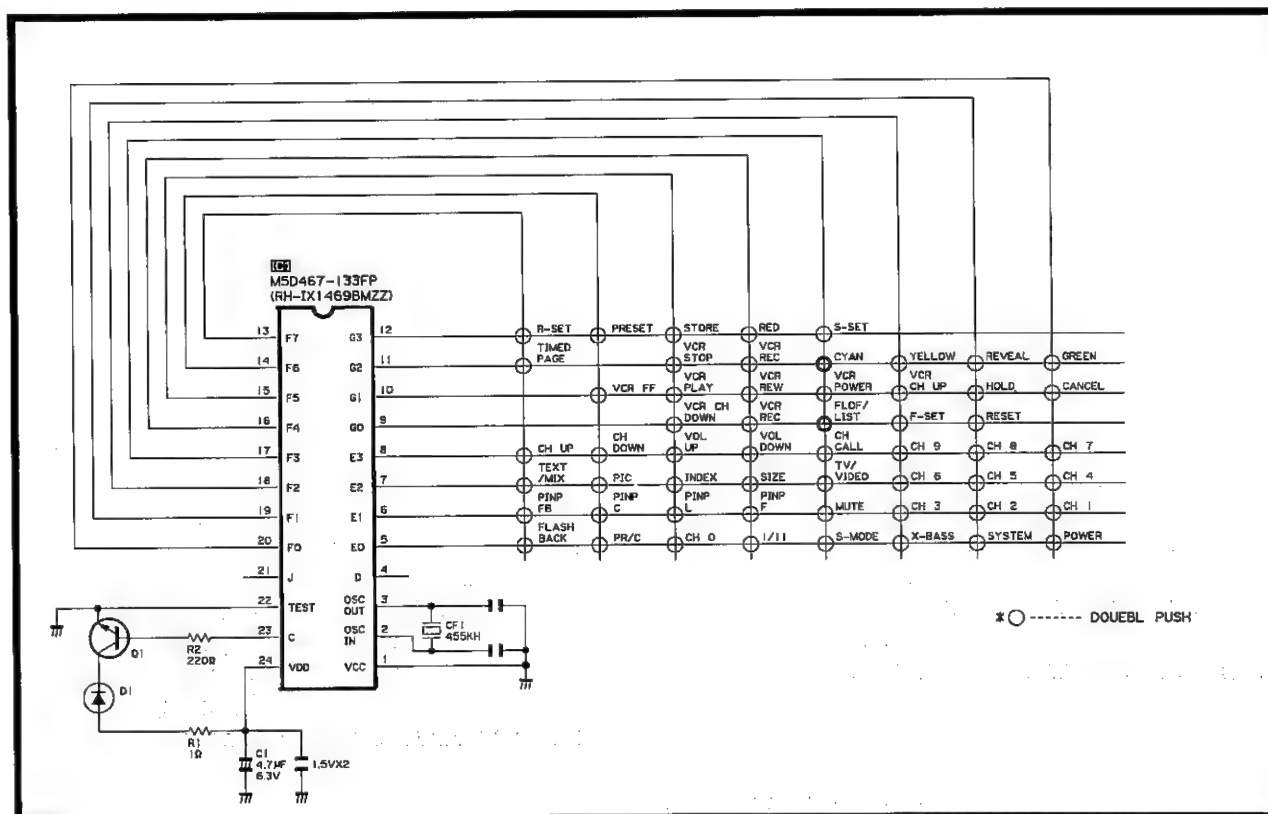


**Tuner**

NOTE: The parts here shown are supplied as an assembly but not independently.

**VTUATEKE9-052****Remote Control Unit**

NOTE: The parts here shown are supplied as an assembly but not independently.

**RRMCG1023BMSA**

## PARTS LIST

## PARTS REPLACEMENT

Replacement parts which have these special safety characteristics identified in this manual: electrical components having such features are identified by "Δ" in the Replacement Parts Lists.

The use of a substitute replacement part which does not have the same safety characteristics as the factory recommended replacement parts shown in this service manual may create shock, fire or other hazards.

## "HOW TO ORDER REPLACEMENT PARTS"

To have your order filled promptly and correctly, please furnish the following informations.

- |                 |                |
|-----------------|----------------|
| 1. MODEL NUMBER | 2. REF. NO.    |
| 3. PART NO.     | 4. DESCRIPTION |
| 5. CODE         | 6. QUANTITY    |

MARK ★ : SPARE PARTS-DELIVERY SECTION

Ref. No.	Part No.	★	Description	Code
----------	----------	---	-------------	------

## PICTURE TUBE

Δ V1	VB51EAL3011*N	S	CRT 51 cm (21")	CL
Δ	RCILG0408BMZZ	S	Degaussing (ADG) Coil	AP

— End of PICTURE TUBE —

PRINTED WIRING BOARD ASSEMBLIES  
( NOT REPLACEMENT ITEM )

PWB-A	DUNTK7150CJV2	-	Main Unit (DV-5465S)	—
PWB-A	DUNTK7150CJV1	-	Main Unit (DV-5470S)	—
PWB-B	DUNTK7092BMZ3	-	CRT Socket Unit (DV-5465S)	—
PWB-B	DUNTK7092BMY7	-	CRT Socket Unit (DV-5470S)	—
PWB-C	DUNTK7148CJV1	-	IF/IGR Unit (DV-5465S)	—
PWB-C	DUNTK7148CJV0	-	IF/IGR Unit (DV-5470S)	—
PWB-D	DUNTK7149BMV0	-	VCJ/TEXT Unit	—

— End of PWB. ASS'Y —

## ERSATZTEILLISTE

## AUSTAUSCH VON TEILEN

Ersatzteile, die besondere Sicherheitseigenschaften haben, sind in dieser Anleitung markiert. Elektrische Komponenten mit solchen Eigenschaften sind in den Ersatzteil durch "Δ" gekennzeichnet. Der Gebrauch von Ersatzteilen, die nicht dieselben Sicherheitseigenschaften haben wie die vom Hersteller empfohlenen und in der Bedienungsanleitung angegebenen, können zur Ursache von Blitzschlägen, Bränden und anderen Gefahren werden.

## "WIE MAN ERSATZTEILE BESTELLT"

Damit Ihre Bestellung prompt und korrekt ausgeführt wird, geben Sie bitte folgende Informationen.

- |                   |                 |
|-------------------|-----------------|
| 1. MODELL NR.     | 2. REF. NR.     |
| 3. ERSATZTEIL NR. | 4. BESCHREIBUNG |
| 5. KODE           | 6. QUANTITÄT    |

MARKIERUNG ★ : ERSATZTEILE-LIEFERUNG

Ref. No.	Part No.	★	Description	Code
----------	----------	---	-------------	------

PWB-A DUNTK7150CJV2/V1  
MAIN UNIT

## TUNER

**NOTE: THE PARTS HERE SHOWN ARE SUPPLIED AS AN ASSEMBLY BUT NOT INDEPENDENTLY.**

Δ TU201	VTUATEKE9-052	S	Tuner, VHF/UHF	BK
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## INTEGRATED CIRCUITS

IC201	RH-IX0037CEZZ	R	Zener IC	AF
IC301	RH-IX1446BMZZ	S	Sound Output	AK
IC401	VHILA7016/-1	R	Video Switch	AH
IC402	VHILA7016/-1	R	Video Switch (DV-5470S)	AH
IC501	RH-IX1163BMZZ	S	Vertical Output	AM
IC651	VHKA7805Pi-1	R	5V Regulator	AE
Δ IC701	RH-IX1424BMZZ	S	IX1424BM	AN
Δ IC702	RH-FX0101BMZZ	S	Photo Coupler	AE
IC751	VHKA7805Pi-1	R	KA7805Pi	AE
IC1001	RH-IX1481BMZZ	S	Microprocessor	AS
IC1002	CH-IX1456CJT1	S	EEP-ROM (DV-5465S)	AP
IC1002	CH-IX1456CJT0	S	EEP-ROM (DV-5470S)	AP
IC1003	CH-IX1412CJSU	S	EP-ROM (DV-5465S)	AU
IC1003	CH-IX1412CJST	S	EP-ROM (DV-5470S)	AU
IC1004	RH-IX1485BMZZ	S	Shift Resistor	AK
IC1005	VHiUPC358C/-1	R	AFT	AD
IC1006	RH-IX1474BMZZ	S	Input	AE
IC1007	RH-IX1475BMZZ	S	Output	AE
IC1008	VHiUPC358C/-1	R	UPC358 (DV-5470S)	AD
IC1009	VHiKiA7045P-1	R	KiA7045P	AD

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
<b>PWB-A DUNTK7150CJV2/V1</b>					<b>DIODES (Continued)</b>				
<b>MAIN UNIT (Continued)</b>					D604	RH-DX0512BMZZ	S	1N4936	AB
<b>TRANSISTORS</b>					D607	RH-DX0045BMZZ	S	1N4148	AA
Q200	VS2SC2412KQ-1	R	2SC2412	AA	D608	RH-DX0045BMZZ	S	1N4148	AA
Q301	RH-TX0104BMZZ	S	BC557	AA	D609	RH-DX0045BMZZ	S	1N4148	AA
Q302	RH-TX0106BMZZ	S	BC547	AB	D610	RH-DX0045BMZZ	S	1N4148	AA
Q303	VS2SC2412KQ-1	R	2SC2412	AA	D611	RH-DX0045BMZZ	S	1N4148	AA
Q304	VS2SC2412KQ-1	R	2SC2412	AA	D612	RH-EX0408BMZZ	S	Zener Diode, 5.1V	AB
Q401	RH-TX0106BMZZ	S	BC547	AB	D613	RH-EX0423BMZZ	S	Zener Diode, 22V	AB
Q403	RH-TX0106BMZZ	S	BC547	AB	D614	RH-DX0045BMZZ	S	1N4148	AA
Q404	RH-TX0106BMZZ	S	BC547	AB	D615	VHDDAN202K/-1	R	DAN202K	AB
Q405	VS2SC2412KQ-1	R	2SC2412	AA	D616	VHDDAN202K/-1	R	DAN202K	AB
Q501	RH-TX0102BMZZ	S	BC338	AB	D617	RH-DX0045BMZZ	S	1N4148	AA
△ Q601	VS2SD1554//2E	R	2SD1554	AL	D618	RH-DX0511BMZZ	S	1N4935	AB
Q602	VS2SC2271-D1A	R	2SC2271 (D)	AD	△ D701	RH-DX0502BMZZ	S	1N4005	AA
Q603	RH-TX0106BMZZ	S	BC547	AB	△ D702	RH-DX0502BMZZ	S	1N4005	AA
Q606	RH-TX0104BMZZ	S	BC557	AA	△ D703	RH-DX0502BMZZ	S	1N4005	AA
Q607	RH-TX0104BMZZ	S	BC557	AA	△ D704	RH-DX0502BMZZ	S	1N4005	AA
Q608	RH-TX0106BMZZ	S	BC547	AB	△ D705	RH-EX0419BMZZ	S	Zener Diode, 15V	AB
Q609	RH-TX0104BMZZ	S	BC557	AA	△ D706	RH-DX0045BMZZ	S	1N4148	AA
Q610	VS2SC2412KQ-1	R	2SC2412	AA	△ D707	RH-DX0045BMZZ	S	1N4148	AA
△ Q701	RH-TX0107BMZZ	S	BF487	AC	△ D708	RH-DX0509BMZZ	S	DX0509BM	AB
△ Q702	RH-TX0106BMZZ	S	BC547	AB	△ D709	RH-DX0045BMZZ	S	1N4148	AA
△ Q703	RH-TX0118BMZZ	S	BC635	AC	△ D710	RH-DX0509BMZZ	S	DX0509BM	AB
△ Q704	RH-TX0119BMZZ	S	MJF18006	AL	△ D711	RH-DX0515BMZZ	S		AB
Q755	RH-TX0102BMZZ	S	BC338	AB	△ D712	RH-DX0045BMZZ	S	1N4148	AA
Q756	RH-TX0106BMZZ	S	BC547	AB	△ D713	RH-DX0510BMZZ	S	DX0510BM	AB
Q1001	VS2SA1037KQ-1	R	2SA1037	AA	△ D714	RH-DX0510BMZZ	S	DX0510BM	AB
Q1002	VS2SC2412KQ-1	R	2SC2412	AA	△ D715	RH-DX0510BMZZ	S	DX0510BM	AB
Q1003	VS2SC2412KQ-1	R	2SC2412	AA	D751	RH-DX0246CEZZ	R		AD
			(DV-5470S)		D752	RH-DX0512BMZZ	S	1N4936	AB
Q1004	VS2SC2412KQ-1	R	2SC2412	AA	D753	RH-EX0410BMZZ	S	Zener Diode	AB
Q1005	VS2SC2412KQ-1	R	2SC2412	AA	D754	RH-DX0514BMZZ	S	MR852	AC
Q1006	VS2SC2412KQ-1	R	2SC2412	AA	D760	RH-DX0045BMZZ	S	1N4148	AA
Q1007	VS2SC2412KQ-1	R	2SC2412	AA	D761	RH-EX0412BMZZ	S	Zener Diode, 7.5V	AB
Q1008	VS2SC2412KQ-1	R	2SC2412	AA	D762	RH-DX0502BMZZ	S	1N4005	AA
Q1009	VS2SC2412KQ-1	R	2SC2412	AA	D763	RH-DX0502BMZZ	S	1N4005	AA
Q1010	VS2SC2412KQ-1	R	2SC2412	AA	D764	RH-DX0502BMZZ	S	1N4005	AA
Q1011	VS2SA1037KQ-1	R	2SA1037	AA	D765	RH-DX0502BMZZ	S	1N4005	AA
Q1012	VS2SC2412KQ-1	R	2SC2412	AA	D766	RH-DX0045BMZZ	S	1N4148	AA
Q1014	VS2SC2412KQ-1	R	2SC2412	AA	D770	RH-DX0045BMZZ	S	1N4148	AA
Q1015	VS2SA1037KQ-1	R	2SA1037	AA	D771	RH-DX0045BMZZ	S	1N4148	AA
Q1017	VS2SC2412KQ-1	R	2SC2412	AA	D775	RH-DX0514BMZZ	S	MR852	AC
<b>DIODES</b>					D1001	RH-PX0291CEZZ	R	ST-BY/POW-IN	AC
D200	RH-DX0045BMZZ	A	1N4148	AA	D1002	RH-PX0291CEZZ	R	STEREO	AC
D501	RH-DX0501BMZZ	S	1N4004	AA	D1003	RH-PX0291CEZZ	R	OPC	AC
D502	RH-DX0501BMZZ	S	1N4004	AA				(DV-5470S)	
D503	RH-EX0437BMZZ	S	Zener Diode, 12V	AC	D1004	RH-DX0045BMZZ	S	1N4148	AA
D504	RH-DX0045BMZZ	S	1N4148	AA	D1005	RH-DX0045BMZZ	S	1N4148	AA
D505	RH-DX0045BMZZ	S	1N4148	AA	D1006	RH-DX0045BMZZ	S	1N4148	AA
D506	RH-DX0045BMZZ	S	1N4148	AA	D1007	RH-DX0045BMZZ	S	1N4148	AA
D602	RH-DX0511BMZZ	S	1N4935	AB	D1008	RH-DX0045BMZZ	S	1N4148	AA
D603	RH-DX0512BMZZ	S	1N4936	AB	D1009	VHDDAN202K/-1	R	DAN202K	AB
								(DV-5470S)	
					D1010	VHDDAN202K/-1	R	DAN202K	AB
								(DV-5470S)	

Ref. No.	Part No.	★	Description	Code
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## PWB-A DUNTK7150CJV2/V1

### MAIN UNIT (Continued)

#### DIODES (Continued)

D1011	VHDDAN202K-1	R	DAN202K	AB
D1012	VHDDAN202K-1	R	DAN202K	AB
D1013	RH-DX0045BMZZ	S	1N4148	AA
D1014	RH-DX0045BMZZ	S	1N4148	AA
D1015	RH-DX0045BMZZ	S	1N4148	AA
D1016	VHDDAN202K-1	R	DAN202K	AB
D1021	VHDDAN202K-1	R	DAN202K	AB
D1022	VHDDAN202K-1	R	DAN202K	AB
D1023	RH-EX0409BMZZ	S	Zener Diode, 5.6V	AA
D1024	RH-DX0045BMZZ	S	1N4148	AA
D1025	RH-DX0045BMZZ	S	1N4148	AA

#### PACKAGED CIRCUITS

△ PR701	RMPTP0028CEZZ	R	Positive Coefficient Thermistor	AG
X1001	RCRSB0209BMZZ	S	Crystal	AG

#### COILS AND TRANSFORMERS

L601	RCILZ0707BMZZ	S	Coil	AH
△ L701	RCILF0110BMZZ	S	Line Filter	AL
△ L703	VP-CF120K0000	R	Coil, 12μH	AB
L704	VP-CF3R3K0000	R	Coil, 3.3μH	AB
L705	VP-CF3R3K0000	R	Coil, 3.3μH	AB
L751	RCILP0213BMZZ	S	Coil	AF
T601	RTRNZ0026PEZZ	R	Trans.	AH
△ T602	RTRNF2026BMZZ	S	Flyback Trans. (FBT)	BD
△ T701	RTRNZ0533BMZZ	S	Trans.	AV
△ T751	RTRNP0001BMZZ	S	Power Trans.	AS

#### CONTROL

R755	RVR-M4156GEZZ	R	300 (B)	AB
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#### CAPACITORS

C201	VCEAGA1HW105M	R	1	50V	Electrolytic	AC
C202	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C203	VCKYTV1HF103Z	R	0.01	50V	Ceramic	AA
C204	VCKYTV1HF103Z	R	0.01	50V	Ceramic	AA
C205	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C206	VCKYPA1HF103Z	R	0.01	50V	Ceramic	AA
C207	VCEAGA1HW106M	R	10	50V	Electrolytic	AC
C208	VCCCTV1HH560J	R	56p	50V	Ceramic	AA
C209	VCCCTV1HH560J	R	56p	50V	Ceramic	AA
C210	VCEAGA1CW106M	R	10	16V	Electrolytic	AA
C211	VCKYTV1HF103Z	R	0.01	50V	Ceramic	AA
C214	VCCCTV1HH470J	R	47p	50V	Ceramic	AA
C306	VCEAGA1CW476M	R	47	16V	Electrolytic	AB
C307	VCEAGA1CW476M	R	47	16V	Electrolytic	AB
C309	VCCCTV1HH560J	R	56p	50V	Ceramic	AA

Ref. No.	Part No.	★	Description	Code
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#### CAPACITORS (Continued)

C310	VCCCTV1HH560J	R	56p	50V	Ceramic	AA
C311	VCCCTV1HH560J	R	56p	50V	Ceramic	AA
C312	VCCCTV1HH560J	R	56p	50V	Ceramic	AA
C315	VCEAGA1CW107M	R	100	16V	Electrolytic	AB
C316	VCEAGA1CW107M	R	100	16V	Electrolytic	AB
C317	VCEAGA1HW475M	R	4.7	50V	Electrolytic	AB
C318	VCEAGA1HW226M	R	22	50V	Electrolytic	AB
C319	VCEAGA1CW227M	R	220	16V	Electrolytic	AC
C320	VCEAGA1CW227M	R	220	16V	Electrolytic	AC
C321	VCEAGA1CW108M	R	1000	16V	Electrolytic	AD
C322	VCEAGA1CW108M	R	1000	16V	Electrolytic	AD
C323	VCEAGA1EW477M	R	470	25V	Electrolytic	AD
C324	VCEAGA1HW475M	R	4.7	50V	Electrolytic	AB
C325	VCKYTV1HB102K	R	1000p	50V	Ceramic	AA
(DV-5470S)						
C326	VCKYTV1HB102K	R	1000p	50V	Ceramic	AA
(DV-5470S)						
C332	VCKYPA2HB102K	R	1000p	500V	Ceramic	AA
C333	RC-FZ9104BMNJ	S	0.1	50V	Mylar	AB
C334	RC-FZ9104BMNJ	S	0.1	50V	Mylar	AB
C337	VCEAGA1CW107M	R	100	16V	Electrolytic	AB
(DV-5470S)						
C338	VCEAGA1CW107M	R	100	16V	Electrolytic	AB
(DV-5470S)						
C339	VCEAGA1CW476M	R	47	16V	Electrolytic	AB
C340	VCEAGA1CW107M	R	100	16V	Electrolytic	AB
C341	VCEAGA1CW107M	R	100	16V	Electrolytic	AB
C344	VCEAGA1CW107M	R	100	16V	Electrolytic	AB
C345	VCEAGA1CW107M	R	100	16V	Electrolytic	AB
C346	VCKYTV1HB102K	R	1000p	50V	Ceramic	AA
C347	VCKYTV1HB102K	R	1000p	50V	Ceramic	AA
C401	VCEAGA1CW476M	R	47	16V	Electrolytic	AB
C402	VCCCTV1HH471J	R	470p	50V	Ceramic	AA
C403	VCEAGA1CW476M	R	47	16V	Electrolytic	AB
C404	VCEAGA1CW476M	R	47	16V	Electrolytic	AB
C405	VCEAGA1CW107M	R	100	16V	Electrolytic	AB
C406	VCKYTV1HF103Z	R	0.01	50V	Ceramic	AA
C407	VCEAGA1CW476M	R	47	16V	Electrolytic	AB
(DV-5470S)						
C410	VCEAGA1CW337M	R	330	16V	Electrolytic	AC
(DV-5470S)						
C411	VCEAGA1CW476M	R	47	16V	Electrolytic	AB
C412	VCEAGA1CW107M	R	100	16V	Electrolytic	AB
C416	VCKYTV1HB103K	R	0.01	50V	Ceramic	AA
C417	VCCCTV1HH471J	R	470p	50V	Ceramic	AA
(DV-5470S)						
C501	VCKYPA2HB102K	R	1000p	500V	Ceramic	AA
C503	VCEAGA1EW108M	R	1000	25V	Electrolytic	AD
C505	VCEAGA1VW477M	R	470	35V	Electrolytic	AD
C506	RC-FZ9333BMNJ	S	0.033	63V	Mylar	AB
C507	VCEAGA1VW107M	R	100	35V	Electrolytic	AC
C508	RC-FZ9684BMNJ	S	0.68	63V	Mylar	AD
C509	VCEAGA1CW107M	R	100	16V	Electrolytic	AB
C511	RC-FZ9105BMNJ	S	1	63V	Mylar	AD
C512	VCCSTV1HL471J	R	470p	50V	Ceramic	AA

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
<b>PWB-A DUNTK7150CJV2/V1</b>					<b>CAPACITORS (Continued)</b>				
<b>MAIN UNIT (Continued)</b>									
<b>CAPACITORS (Continued)</b>									
C601	VCKYPA1HF103Z	R	0.01 50V	Ceramic AA	C757	VCKYPA2HB102K	R	1000p 500V	Ceramic AA
C602	RC-FZ7683BMNJ	S	0.068 400V	Mylar AE	C758	VCEAGA1EW108M	R	1000 25V	Electrolytic AD
C603	VCKYPA2HB102K	R	1000p 500V	Ceramic AA	C759	VCEAGA1EW108M	R	1000 25V	Electrolytic AD
C604	RC-FZ0147BMZZ	S	8200p	Mylar AE	C760	VCKYPA2HB102K	R	1000p 500V	Ceramic AA
C605	RC-KZ0006TAZZ	R	270p 2kV	Ceramic AB	C761	VCKYPA1HF103Z	R	0.01 50V	Ceramic AA
C606	VCKYPA2HB221K	R	220p 500V	Ceramic AA	C762	VCEAGA1CW476M	R	47 16V	Electrolytic AB
C607	RC-FZ6334BMNJ	S	0.33 250V	Mylar AE	C764	VCEAGA1CW106M	R	10 16V	Electrolytic AA
C608	RC-FZ7104BMNJ	S	0.1 400V	Mylar AD	C765	VCEAGA1CW106M	R	10 16V	Electrolytic AA
C609	VCEAGA2CW105M	R	1 160V	Electrolytic AB	C769	VCEAGA1CW108M	R	1000 16V	Electrolytic AD
C610	RC-FZ6474BMNJ	S	0.47 250V	Mylar AE	C1001	VCCCTV1HH220J	R	22p 50V	Ceramic AA
C611	VCKYPA2HB102K	R	1000p 500V	Ceramic AA	C1002	VCCCTV1HH220J	R	22p 50V	Ceramic AA
C612	VCEAGA1VW477M	R	470 35V	Electrolytic AD	C1003	VCEAGA1HW105M	R	1 50V	Electrolytic AC
C613	VCKYPA2HB102K	R	1000p 500V	Ceramic AA	C1004	VCEAGA1CW106M	R	10 16V	Electrolytic AA
C614	VCEAGA2DW106M	R	10 200V	Electrolytic AC	(DV-5470S)				
C615	RC-FZ9224BMNJ	S	0.1 63V	Mylar AC	C1005	VCEAGA1AW476M	R	47 10V	Electrolytic AA
C616	VCEAGA1HW106M	R	10 50V	Electrolytic AC	C1007	VCEAGA1AW476M	R	47 10V	Electrolytic AA
C619	VCEAGA1HW475M	R	4.7 50V	Electrolytic AB	C1008	VCEAGA1CW106M	R	10 16V	Electrolytic AA
C620	VCEAGA1CW106M	R	10 16V	Electrolytic AA	C1009	VCEAGA1CW106M	R	10 16V	Electrolytic AA
C621	VCEAGA1CW106M	R	10 16V	Electrolytic AA	C1010	VCEAGA1CW106M	R	10 16V	Electrolytic AA
C622	VCEAGA0JW107M	R	100 6.3V	Electrolytic AB	C1011	VCEAGA1CW106M	R	10 16V	Electrolytic AA
C623	VCEAGA1HW475M	R	4.7 50V	Electrolytic AB	C1012	VCEAGA1CW106M	R	10 16V	Electrolytic AA
C624	VCEAGA1CW476M	R	47 16V	Electrolytic AB	C1013	VCEAGA1HW475M	R	4.7 50V	Electrolytic AB
C625	VCEAGA1CW106M	R	10 16V	Electrolytic AA	(DV-5470S)				
C627	RC-FZ9474BMNJ	S	0.47 63V	Mylar AD	C1014	VCEAGA1CW106M	R	10 16V	Electrolytic AA
△ C701	RC-FZ0145BMZZ	S	0.1 AC300V	Mylar AD	(DV-5470S)				
△ C703	RC-KZ0029CEZZ	R	0.01 AC250V	Ceramic AC	C1015	VCEAGA1CW106M	R	10 16V	Electrolytic AA
△ C706	RC-KZ0029CEZZ	R	0.01 AC250V	Ceramic AC	(DV-5470S)				
△ C707	RC-KZ0029CEZZ	R	0.01 AC250V	Ceramic AC	C1016	VCEAGA1CW106M	R	10 16V	Electrolytic AA
△ C708	RC-EZ0100BMZZ	S	100 400V	Electrolytic AM	(DV-5470S)				
△ C709	RC-KZ0029CEZZ	R	0.01 AC250V	Ceramic AC	C1017	VCEAGA1CW106M	R	10 16V	Electrolytic AA
△ C710	RC-FZ9105BMNJ	S	1 63V	Mylar AD	C1018	VCEAGA1HW106M	R	10 50V	Electrolytic AC
△ C711	RC-KZ0024CEZZ	R	1000p 2kV	Ceramic AC	C1019	RC-FZ9104BMNJ	S	0.1 63V	Mylar AB
△ C712	VCEAGA2AW336M	R	33 100V	Electrolytic AC	C1020	VCKYTV1HF103Z	R	0.01 50V	Ceramic AA
△ C714	VCKYPA2HB102K	R	1000p 500V	Ceramic AA	C1022	RC-FZ9103BMNJ	S	0.01 63V	Mylar AA
△ C715	VCEAGA1HW106M	R	10 50V	Electrolytic AC	C1023	VCEAGA1CW226M	R	22 16V	Electrolytic AB
△ C716	RC-FZ9104BMNJ	S	0.1 63V	Mylar AB	C1024	VCEAGA1CW225M	R	2.2 16V	Electrolytic AA
△ C717	VCKYPA2HB331K	R	330p 500V	Ceramic AA	C1025	VCEAGA0JW107M	R	100 6.3V	Electrolytic AB
△ C718	RC-FZ9103BMNJ	S	0.01 63V	Mylar AA					
△ C719	VCEAGA1HW106M	R	10 50V	Electrolytic AC	<b>RESISTORS</b>				
△ C720	VCEAGA1HW475M	R	4.7 50V	Electrolytic AB	R516	VRS-VV3DB471J	R	470 2W	Metal Oxide AA
△ C721	VCKYPA1HB681K	R	680p 50V	Ceramic AA	R204	VRD-RA2HD392J	R	3.9k 1/2W	Carbon AA
△ C725	VCEAGA1CW107M	R	100 16V	Electrolytic AB	R205	VRD-RA2HD392J	R	3.9k 1/2W	Carbon AA
△ C726	RC-KZ0156CEZZ	R	3300p 4kV	Ceramic AG	R206	VRD-RA2HD392J	R	3.9k 1/2W	Carbon AA
△ C727	VCKYPA1HB102K	R	1000p 50V	Ceramic AA	R207	VRD-RA2EE331J	R	330 1/4W	Carbon AA
△ C728	RC-KZ0029CEZZ	R	0.01 AC250V	Ceramic AC	R208	VRS-TV1JD101J	R	100 1/16W	Metal Oxide AA
△ C743	VCKYPA1HB102K	R	1000p 50V	Ceramic AA	R305	VRD-RA2EE101J	R	100 1/4W	Carbon AA
C751	RC-EZ0258CEZZ	R	100 200V	Electrolytic AH	R306	VRD-RA2EE101J	R	100 1/4W	Carbon AA
C752	VCEAAH2EW476M	R	47 250V	Electrolytic AF	R307	VRD-RA2BE104J	R	100k 1/8W	Carbon AA
C753	VCKYPA1HF103Z	R	0.01 50V	Ceramic AA	R308	VRD-RA2BE104J	R	100k 1/8W	Carbon AA
C754	VCKYPA2HB102K	R	1000p 500V	Ceramic AA	R309	VRD-RA2BE563J	R	56k 1/8W	Carbon AA
C755	VCEAGA1EW477M	R	470 25V	Electrolytic AD	R310	VRD-RA2BE563J	R	56k 1/8W	Carbon AA
C756	VCKYPA2HB102K	R	1000p 500V	Ceramic AA	R311	VRD-RA2HD122J	R	1.2k 1/2W	Carbon AA
					R312	VRD-RA2HD122J	R	1.2k 1/2W	Carbon AA
					R313	VRD-RA2HD390J	R	39 1/2W	Carbon AA

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
<b>PWB-A DUNTK7150CJV2/V1</b>					<b>RESISTORS (Continued)</b>				
<b>MAIN UNIT (Continued)</b>					R426	VRD-RA2BE560J	R 56	1/8W Carbon	AA
<b>RESISTORS (Continued)</b>								(DV-5470S)	
R314	VRD-RA2HD390J	R 39	1/2W Carbon	AA	R427	VRD-RA2BE102J	R 1k	1/8W Carbon	AA
R315	VRS-TV1JD123J	R 12k	1/16W Metal Oxide	AA	R428	VRS-TV1JD101J	R 100	1/16W Metal Oxide	AA
R316	VRS-TV1JD123J	R 12k	1/16W Metal Oxide	AA	R501	VRS-TV1JD153J	R 15k	1/16W Metal Oxide	AA
R317	VRD-RA2BE103J	R 10k	1/8W Carbon	AA	R502	VRD-RA2HD271J	R 270	1/2W Carbon	AA
R318	VRS-TV1JD102J	R 1k	1/16W Metal Oxide	AA	R503	VRD-RA2HDR82J	R 0.82	1/2W Carbon	AA
R319	VRS-TV1JD103J	R 10k	1/16W Metal Oxide	AA	R504	VRS-TV1JD223J	R 22k	1/16W Metal Oxide	AA
R320	VRS-TV1JD104J	R 100k	1/16W Metal Oxide	AA	R505	VRS-TV1JD153J	R 15k	1/16W Metal Oxide	AA
			(DV-5470S)		R506	VRS-TV1JD104J	R 100k	1/16W Metal Oxide	AA
R321	VRS-TV1JD104J	R 100k	1/16W Metal Oxide	AA	R509	VRS-TV1JD103J	R 10k	1/16W Metal Oxide	AA
			(DV-5470S)		R510	VRD-RA2BE104J	R 100k	1/8W Carbon	AA
R324	VRD-RA2BE563J	R 56k	1/8W Carbon	AA	R511	VRS-TV1JD473J	R 47k	1/16W Metal Oxide	AA
			(DV-5470S)		R512	VRS-TV1JD103J	R 10k	1/16W Metal Oxide	AA
R325	VRD-RA2BE563J	R 56k	1/8W Carbon	AA	△ R513	RR-XZ0200BMZZ	S 1	1/2W Fuse Resistor	AB
			(DV-5470S)		R514	VRS-TV1JD102J	R 1k	1/16W Metal Oxide	AA
R326	VRS-TV1JD124J	R 120k	1/16W Metal Oxide	AA	R515	VRS-TV1JD472J	R 4.7k	1/16W Metal Oxide	AA
R327	VRS-TV1JD183J	R 18k	1/16W Metal Oxide	AA	R517	VRS-VV3DB152J	R 1.5k	2W Metal Oxide	AA
R328	VRS-TV1JD124J	R 120k	1/16W Metal Oxide	AA	R518	VRS-TV1JD392J	R 3.9k	1/16W Metal Oxide	AA
R329	VRS-TV1JD183J	R 18k	1/16W Metal Oxide	AA	R519	VRD-RA2HD122J	R 1.2k	1/2W Carbon	AA
△ R330	RR-XZ0200BMZZ	S 1	1/2W Fuse Resistor	AB	R520	VRD-RA2HD122J	R 1.2k	1/2W Carbon	AA
△ R331	RR-XZ0200BMZZ	S 1	1/2W Fuse Resistor	AB	R521	VRS-TV1JD472J	R 4.7k	1/16W Metal Oxide	AA
R332	VRS-TV1JD104J	R 100k	1/16W Metal Oxide	AA	R524	VRD-RA2HD471J	R 470	1/2W Carbon	AA
R333	VRS-TV1JD104J	R 100k	1/16W Metal Oxide	AA	R601	VRS-TV1JD223J	R 22k	1/16W Metal Oxide	AA
R336	VRS-TV1JD101J	R 100k	1/16W Metal Oxide	AA	R602	VRD-RA2BE102J	R 1k	1/8W Carbon	AA
			(DV-5470S)		R603	VRD-RA2BE102J	R 1k	1/8W Carbon	AA
R337	VRS-TV1JD101J	R 100k	1/16W Metal Oxide	AA	R604	VRD-RA2BE391J	R 390	1/8W Carbon	AA
			(DV-5470S)		R605	VRS-SV3LB392J	R 3.9k	3W Metal Oxide	AC
R342	VRD-RA2BE102J	R 1k	1/8W Carbon	AA	R606	VRD-RA2HD392J	R 3.9k	1/2W Carbon	AA
R343	VRD-RA2BE102J	R 1k	1/8W Carbon	AA	R607	VRD-RA2HD222J	R 2.2k	1/2W Carbon	AA
R344	VRS-TV1JD103J	R 10k	1/16W Metal Oxide	AA	R608	VRS-VV3AB332J	R 3.3k	1W Metal Oxide	AA
R345	VRS-TV1JD103J	R 10k	1/16W Metal Oxide	AA	R609	VRW-KX3HC5R6K	R 5.6	5W Cement	AD
R346	VRD-RA2BE102J	R 1k	1/8W Carbon	AA	△ R611	RR-XZ0216BMZZ	S 22	1/2W Fuse Resistor	AB
R347	VRD-RA2BE102J	R 1k	1/8W Carbon	AA	R612	VRD-RA2EE102J	R 1k	1/4W Carbon	AA
R348	VRS-TV1JD104J	R 100k	1/16W Metal Oxide	AA	R613	VRN-VV3AB3R9J	R 3.9	1W Metal Film	AA
R391	VRS-TV1JD101J	R 100	1/16W Metal Oxide	AA	R614	VRD-RA2BE472J	R 4.7k	1/8W Carbon	AA
R392	VRS-TV1JD101J	R 100	1/16W Metal Oxide	AA	R615	VRD-RA2BE102J	R 1k	1/8W Carbon	AA
R402	VRD-RA2HD221J	R 220	1/2W Carbon	AA	△ R616	RR-XZ0216BMZZ	S 22	1/2W Fuse Resistor	AB
R403	VRD-RA2EE680J	R 68	1/4W Carbon	AA	R621	VRS-TV1JD124J	R 120k	1/16W Metal Oxide	AA
R404	VRD-RA2EE820J	R 82	1/4W Carbon	AA	R622	VRS-TV1JD154J	B 150k	1/16W Metal Oxide	AA
R405	VRD-RA2EE560J	R 56	1/4W Carbon	AA	R623	VRD-RA2EE125J	R 1.2M	1/4W Carbon	AA
R406	VRD-RA2EE820J	R 82	1/4W Carbon	AA	R624	VRS-TV1JD124J	R 120k	1/16W Metal Oxide	AA
			(DV-5470S)		R625	VRS-TV1JD472J	R 4.7k	1/16W Metal Oxide	AA
R410	VRD-RA2BE103J	R 10k	1/8W Carbon	AA	R626	VRS-TV1JD103J	R 10k	1/16W Metal Oxide	AA
R411	VRD-RA2BE103J	R 10k	1/8W Carbon	AA	R627	VRD-RA2BE152J	R 1.5k	1/8W Carbon	AA
R412	VRD-RA2BE102J	R 1k	1/8W Carbon	AA	R628	VRS-TV1JD103J	R 10k	1/16W Metal Oxide	AA
R413	VRD-RA2EE821J	R 820	1/4W Carbon	AA	R629	VRD-RA2BE152J	R 1.5k	1/8W Carbon	AA
R414	VRS-TV1JD222J	R 2.2k	1/16W Metal Oxide	AA	R630	VRS-TV1JD103J	R 10k	1/16W Metal Oxide	AA
R415	VRS-TV1JD332J	R 3.3k	1/16W Metal Oxide	AA	R631	VRS-TV1JD103J	R 10k	1/16W Metal Oxide	AA
R416	VRS-TV1JD102J	R 1k	1/16W Metal Oxide	AA	R632	VRS-TV1JD472J	R 4.7k	1/16W Metal Oxide	AA
R417	VRD-RA2BE102J	R 1k	1/8W Carbon	AA	R633	VRS-TV1JD472J	R 4.7k	1/16W Metal Oxide	AA
△ R418	RR-XZ0110BMZZ	S 22	1/2W Fuse Resistor	AB	R634	VRS-TV1JD472J	R 4.7k	1/16W Metal Oxide	AA
△ R423	RR-XZ0110BMZZ	S 22	1/2W Fuse Resistor	AB	R635	VRS-TV1JD472J	R 4.7k	1/16W Metal Oxide	AA
					R636	VRS-TV1JD102J	R 1k	1/16W Metal Oxide	AA
					R637	VRS-TV1JD103J	R 10k	1/16W Metal Oxide	AA



Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
<b>PWB-A DUNTK7150CJV2/V1</b>					<b>RESISTORS (Continued)</b>				
<b>MAIN UNIT (Continued)</b>									
<b>RESISTORS (Continued)</b>									
R638	VRS-TV1JD103J	R	10k 1/16W	Metal Oxide AA	R1002	VRS-TV1JD102J	R	1k 1/16W	Metal Oxide AA
R640	VRD-RA2BE102J	R	1k 1/8W	Carbon AA	R1003	VRS-TV1JD102J	R	1k 1/16W	Metal Oxide AA
R641	VRS-TV1JD154J	B	150k 1/16W	Metal Oxide AA	R1004	VRS-TV1JD332J	R	3.3k 1/16W	Metal Oxide AA
R642	VRS-TV1JD225J	R	2.2M 1/16W	Metal Oxide AA	R1005	VRS-TV1JD332J	R	3.3k 1/16W	Metal Oxide AA
R643	VRN-VV3AB1R0J	R	1 1W	Metal Film AA	R1008	VRS-TV1JD101J	R	100 1/16W	Metal Oxide AA
R647	VRD-RA2BE561J	R	560 1/8W	Carbon AA	R1009	VRS-TV1JD101J	R	100 1/16W	Metal Oxide AA
R648	VRS-TV1JD103J	R	10k 1/16W	Metal Oxide AA	R1010	VRS-TV1JD222J	R	2.2k 1/16W	Metal Oxide AA
△ R701	VRW-KX3NC8R2K	R	8.2 7W	Cement AD	R1011	VRS-TV1JD222J	R	2.2k 1/16W	Metal Oxide AA
△ R702	VRD-RA2HD154J	R	150k 1/2W	Carbon AA	R1012	VRS-TV1JD103J	R	10k 1/16W	Metal Oxide AA
△ R703	VRD-RA2HD154J	R	150k 1/2W	Carbon AA	R1013	VRS-TV1JD472J	R	4.7k 1/16W	Metal Oxide AA
△ R704	VRD-RA2HD154J	R	150k 1/2W	Carbon AA	R1014	VRS-TV1JD222J	R	2.2k 1/16W	Metal Oxide AA
△ R705	RR-XZ0242BMZZ	S	3.3k 1/3W	Fuse Resistor AB	R1015	VRS-TV1JD222J	R	2.2k 1/16W	Metal Oxide AA
△ R706	VRD-RA2BE103J	R	10k 1/8W	Carbon AA	R1016	VRS-TV1JD222J	R	2.2k 1/16W	Metal Oxide AA
△ R707	VRD-RA2BE390J	R	39 1/8W	Carbon AA	R1017	VRS-TV1JD222J	R	2.2k 1/16W	Metal Oxide AA
△ R708	VRD-RA2HD101J	R	100 1/2W	Carbon AA	R1018	VRS-TV1JD472J	R	4.7k 1/16W	Metal Oxide AA
△ R709	VRD-RA2BE101J	R	100 1/8W	Carbon AA	R1019	VRS-TV1JD222J	R	2.2k 1/16W	Metal Oxide AA
△ R710	VRN-VV3DBR22J	R	0.22 2W	Metal Film AB	R1020	VRS-TV1JD222J	R	2.2k 1/16W	Metal Oxide AA
△ R711	RR-XZ0206BMZZ	S	3.3 1/2W	Fuse Resistor AB	R1021	VRS-TV1JD101J	R	100 1/16W	Metal Oxide AA
△ R712	RR-XZ0206BMZZ	S	3.3 1/2W	Fuse Resistor AB	R1022	VRS-TV1JD101J	R	100 1/16W	Metal Oxide AA
△ R713	VRS-VV3DB220J	R	22 2W	Metal Oxide AA	R1023	VRS-TV1JD223J	R	22k 1/16W	Metal Oxide AA
△ R714	VRD-RA2HD6R8J	R	6.8 1/2W	Carbon AA	R1024	VRD-RA2EE471J	R	470 1/4W	Carbon AA
△ R715	VRD-RA2HD152J	R	1.5k 1/2W	Carbon AA	R1025	VRD-RA2EE331J	R	330 1/4W	Carbon AA
△ R716	VRD-RA2BE182J	R	1.8k 1/8W	Carbon AA	R1026	VRD-RA2BE473J	R	47k 1/8W	Carbon AA
△ R717	VRD-RA2BE102J	R	1k 1/8W	Carbon AA	R1027	VRS-TV1JD472J	R	4.7k 1/16W	Metal Oxide AA
△ R718	VRD-RA2BE473J	R	47k 1/8W	Carbon AA	R1028	VRD-RA2EE331J	R	330 1/4W	Carbon AA
△ R719	VRD-RA2BE152J	R	1.5k 1/8W	Carbon AA	R1029	VRD-RA2BE473J	R	47k 1/4W	Carbon AA
△ R720	VRD-RA2BE154J	R	150k 1/8W	Carbon AA				(DV-5470S)	
△ R721	VRD-RA2BE183J	R	18k 1/8W	Carbon AA	R1030	VRS-TV1JD472J	R	4.7k 1/16W	Metal Oxide AA
△ R722	VRD-RA2BE223J	R	22k 1/8W	Carbon AA				(DV-5470S)	
△ R723	VRD-RA2BE121J	R	120 1/8W	Carbon AA	R1031	VRD-RA2EE331J	R	330 1/4W	Carbon AA
△ R724	VRC-UA2HG825K	R	8.2M 1/2W	Solid AA				(DV-5470S)	
△ R725	VRC-UA2HG825K	R	8.2M 1/2W	Solid AA	R1032	VRS-TV1JD392J	R	3.9k 1/16W	Metal Oxide AA
R726	VRW-KX3HC102K	R	1k 5W	Cement AD	R1033	VRS-TV1JD473J	R	47k 1/16W	Metal Oxide AA
R754	VRD-RA2BE102J	R	1k 1/8W	Carbon AA	R1034	VRS-TV1JD473J	R	47k 1/16W	Metal Oxide AA
R755	See Control				R1035	VRD-RA2BE222J	R	2.2k 1/8W	Carbon AA
R756	VRD-RA2BE102J	R	1k 1/8W	Carbon AA	R1036	VRD-RA2BE222J	R	2.2k 1/8W	Carbon AA
R761	VRN-VV3DB1R0J	R	1 2W	Metal Film AB	R1037	VRS-TV1JD102J	R	1k 1/16W	Metal Oxide AA
R762	VRD-RA2BE102J	R	1k 1/8W	Carbon AA				(DV-5470S)	
R766	VRD-RA2BE222J	R	2.2k 1/8W	Carbon AA	R1038	VRS-TV1JD332J	R	3.3k 1/16W	Metal Oxide AA
R768	VRS-TV1JD472J	R	4.7k 1/16W	Metal Oxide AA				(DV-5470S)	
R770	VRS-TV1JD103J	R	10k 1/16W	Metal Oxide AA	R1039	VRS-TV1JD152J	R	1.5k 1/16W	Metal Oxide AA
R771	VRS-TV1JD102J	R	1k 1/16W	Metal Oxide AA				(DV-5470S)	
R775	VRD-RA2HD470J	R	47 1/2W	Carbon AA	R1040	VRS-TV1JD103J	R	10k 1/16W	Metal Oxide AA
R901	VRD-RA2EE820J	R	82 1/4W	Carbon AA				(DV-5470S)	
R902	VRD-RA2EE820J	R	82 1/4W	Carbon AA	R1041	VRD-RA2BE123J	R	12k 1/8W	Carbon AA
R903	VRD-RA2EE820J	R	82 1/4W	Carbon AA				(DV-5470S)	
R904	VRD-RA2EE820J	R	82 1/4W	Carbon AA	R1042	VRS-TV1JD224J	R	220k 1/16W	Metal Oxide AA
R905	VRD-RA2EE102J	R	1k 1/4W	Carbon AA				(DV-5470S)	
R906	VRD-RA2EE102J	R	1k 1/4W	Carbon AA	R1044	VRS-TV1JD273J	R	27k 1/16W	Metal Oxide AA
R907	VRD-RA2EE102J	R	1k 1/4W	Carbon AA				(DV-5470S)	
R908	VRD-RA2EE102J	R	1k 1/4W	Carbon AA	R1045	VRS-TV1JD334J	R	330k 1/16W	Metal Oxide AA
R1001	VRS-TV1JD102J	R	1k 1/16W	Metal Oxide AA	R1046	VRS-TV1JD101J	R	100 1/16W	Metal Oxide AA
					R1047	VRS-TV1JD823J	R	82k 1/16W	Metal Oxide AA
					R1048	VRS-TV1JD223J	R	22k 1/16W	Metal Oxide AA
					R1049	VRS-TV1JD104J	R	100k 1/16W	Metal Oxide AA

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
<b>PWB-A DUNTK7150CJV2/V1</b>					<b>MISCELLANEOUS PARTS</b>				
<b>MAIN UNIT (Continued)</b>					E1001	UBATZ0003CEZZ	J	OPC Cell (DV-5470S)	AG
<b>RESISTORS (Continued)</b>					FB301	RBLN-0037CEZZ	R	Ferrite Bead (DV-5470S)	AB
R1050	VRS-TV1JD681J	R	680 1/16W Metal Oxide	AA	FB303	RBLN-0037CEZZ	R	Ferrite Bead	AB
R1051	VRS-TV1JD223J	R	22k 1/16W Metal Oxide	AA	FB603	RBLN-0037CEZZ	R	Ferrite Bead	AB
R1053	VRD-RA2EE150J	R	15 1/4W Carbon (DV-5470S)	AA	FB751	RBLN-0037CEZZ	R	Ferrite Bead	AB
R1055	VRS-TV1JD332J	R	3.3k 1/16W Metal Oxide	AA	FB602	RBLN-0010CEZZ	R	Ferrite Bead	AC
R1056	VRS-TV1JD103J	R	10k 1/16W Metal Oxide (DV-5470S)	AA	FH701	QFSHD1009CEZZ	R	Fuse Holder	AA
R1057	VRS-TV1JD103J	R	10k 1/16W Metal Oxide	AA	FH702	QFSHD1010CEZZ	R	Fuse Holder	AA
R1058	VRS-TV1JD222J	R	2.2k 1/16W Metal Oxide	AA	△ F701	QFS-C2050BMZZ	S	Fuse, T2AH	AD
R1059	VRS-TV1JD103J	R	10k 1/16W Metal Oxide	AA	△ F751	QFS-J4021CEZZ	S	Fuse, IC Protector	AE
R1060	VRS-TV1JD103J	R	10k 1/16W Metal Oxide	AA	△ J401	QJAKG0021CEZZ	S	Jack	AH
R1061	VRS-TV1JD103J	R	10k 1/16W Metal Oxide	AA	P301	QPLGN0441CEZZ	R	Plug 4-pin, (S)	AB
R1062	VRS-TV1JD103J	R	10k 1/16W Metal Oxide	AA	P602	QPLGN0441CEZZ	R	Plug 4-pin, (H)	AB
R1063	VRS-TV1JD103J	R	10k 1/16W Metal Oxide	AA	P601	QPLGN0505CEZZ	R	Plug 5-pin, (F)	AB
R1064	VRS-TV1JD103J	R	10k 1/16W Metal Oxide	AA	P603	QPLGN0541CEZZ	R	Plug 5-pin, (K)	AB
R1065	VRS-TV1JD103J	R	10k 1/16W Metal Oxide	AA	△ P701	QPLGN0304CEZZ	R	Plug 3-pin, (A)	AB
R1066	VRS-TV1JD103J	R	10k 1/16W Metal Oxide	AA	△ P702	QPLGN0207CEZZ	R	Plug 2-pin, (G)	AA
R1067	VRS-TV1JD103J	R	10k 1/16W Metal Oxide	AA	RMC1001	RRMCU0201BMZZ	S	Remote Control Receiver	AN
R1068	VRS-TV1JD103J	R	10k 1/16W Metal Oxide	AA	△ RY751	RRLYZ0001BMZZ	S	Relay	AK
R1069	VRD-RA2BE103J	R	10k 1/8W Carbon	AA	SC201	QSOCN1085CEZZ	R	Socket 10-pin, (FA)	AD
R1070	VRS-TV1JD103J	R	10k 1/16W Metal Oxide	AA	SC202	QSOCN1185CEZZ	R	Socket 11-pin, (FB)	AD
R1071	VRS-TV1JD473J	R	47k 1/16W Metal Oxide	AA	SC203	QSOCN0685CEZZ	R	Socket 6-pin, (FC)	AC
R1073	VRS-TV1JD821J	R	820 1/16W Metal Oxide	AA	SC801	QSOCN1185CEZZ	R	Socket 11-pin, (DA)	AD
R1074	VRS-TV1JD271J	R	270 1/16W Metal Oxide	AA	SC802	QSOCN0885CEZZ	R	Socket 8-pin, (DB)	AC
R1075	VRS-TV1JD103J	R	10k 1/16W Metal Oxide	AA	SC803	QSOCN0985CEZZ	R	Socket 9-pin, (DC)	AD
R1076	VRD-RA2BE271J	R	270 1/8W Carbon	AA	△ SC901	QSOCZ0106BMZZ	S	Socket, Euro Scart	AE
R1077	VRS-TV1JD102J	R	1k 1/16W Metal Oxide	AA	SC1001	QSOCZ0100BMZZ	S	Socket	AB
R1078	VRS-TV1JD103J	R	10k 1/16W Metal Oxide	AA	SC1002	QSOCZ0101BMZZ	S	Socket	AD
R1079	VRS-TV1JD473J	R	47k 1/16W Metal Oxide	AA					
R1080	VRS-TV1JD103J	R	10k 1/16W Metal Oxide	AA					
R1081	VRD-RA2BE151J	R	150 1/8W Carbon	AA					
R1082	VRS-TV1JD103J	R	10k 1/16W Metal Oxide	AA					
R1083	VRS-TV1JD562J	R	5.6k 1/16W Metal Oxide	AA					
R1084	VRD-RA2BE392J	R	3.9k 1/8W Carbon	AA					

**SWITCH**

△ S701	QSW-P0566CEZZ	R	Main Power	AL
△ S1001	QSW-K0079GEZZ	R	Channel (+)	AB
△ S1002	QSW-K0079GEZZ	R	Channel (-)	AB
△ S1003	QSW-K0079GEZZ	R	Sound Volume (+)	AB
△ S1004	QSW-K0079GEZZ	R	Sound Volume (-)	AB
S1005	QSW-K0079GEZZ	R	OPC (DV-5470S)	AB

— End of PWB-A —



Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
<b>PWB-B DUNTK7092BMZ3/Y7</b>					<b>PWB-C DUNTK7148CJV1/V0</b>				
<b>CRT SOCKET UNIT</b>					<b>IF/IGR UNIT</b>				
<b>TRANSISTORS</b>					<b>INTEGRATED CIRCUITS</b>				
Q870	RH-TX0110BMZZ	S	BF422	AB	IC1200	VHITDA9813T-1	S	TDA9813T	AW
Q871	RH-TX0110BMZZ	S	BF422	AB	IC1301	RH-iX1445BMZZ	S	ACP237DIL	AW
Q872	RH-TX0110BMZZ	S	BF422	AB	<b>TRANSISTORS</b>				
Q883	RH-TX0124BMZZ	S	BF421	AB	Q1200	VS2SC1906//1E	R	2SC1906	AC
Q885	RH-TX0124BMZZ	S	BF421	AB	Q1201	VS2SC1906//1E	R	2SC1906	AC
Q887	RH-TX0124BMZZ	S	BF421	AB	Q1303	VS2SC2412KQ-1	R	2SC2412	AA
<b>DIODES</b>					Q1331	RH-TX0113BMZZ	S	H-TX0113BM	AC
D880	RH-DX0045BMZZ	S	1N4148	AA	<b>DIODES</b>				
D881	RH-DX0045BMZZ	S	1N4148	AA	D1301	RH-DX0045BMZZ	S	1N4148	AA
D882	RH-DX0045BMZZ	S	1N4148	AA	D1302	RH-DX0045BMZZ	S	1N4148	AA
<b>COIL</b>					D1304	RH-DX0013GEZZ	R	DX0013GE	AB
L881	VP-CF100K0000	R	Coil, 10μH	AB	<b>PACKAGED CIRCUIT</b>				
<b>CAPACITORS</b>					X1331	RCRSB0200BMZZ	S	Crystal, 17.73 MHz	AG
C871	VCKYPA1HB821K	R	820p 50V Ceramic	AA	<b>COILS AND TRANSFORMERS</b>				
C872	VCKYPA1HB821K	R	820p 50V Ceramic	AA	CF1200	RFILC0081CEZZ	R	Ceramic Filter, 5.5 MHz	AF
C873	VCKYPA1HB821K	R	820p 50V Ceramic	AA	CF1201	RFILC0063CEZZ	R	Ceramic Filter, 5.74 MHz	AG
C876	RC-KZ0023CEZZ	R	4700p 2kV Ceramic	AD	CF1202	RFILC0020CEZZ	R	Ceramic Filter, 5.5 MHz	AE
C878	VCEAAA2DW106M	R	10 200V Electrolytic	AC	L1201	VP-XF1R2K0000	R	Coil, 1.2μH	AB
C880	VCKYPA1HB471K	R	470p 50V Ceramic	AA	L1202	VP-XF120K0000	R	Coil, 12μH	AB
C881	VCKYPA1HB471K	R	470p 50V Ceramic	AA	L1301	VP-XF3R3K0000	R	Coil, 3.3μH	AB
C882	VCKYPA1HB471K	R	470p 50V Ceramic	AA	SF1200	RFILC0108BMZZ	S	Surface Acoustic	AL
<b>RESISTORS</b>					SF1201	RFILC0198CEZZ	R	Wave Filter	AH
R877	VRD-RU2EE100J	R	10 1/4W Carbon	AA	T1201	RCiLi0402CEZZ	R	IF Coil	AD
R879	VRD-RA2BE331J	R	330 1/8W Carbon	AA	T1202	RCiLD0231CEZZ	S	Detection Coil	AE
R880	VRD-RA2BE331J	R	330 1/8W Carbon	AA	<b>CONTROLS</b>				
R881	VRD-RA2BE331J	R	330 1/8W Carbon	AA	R1216	RVR-B1007AEZZ	R	22k (B) RF-AGC	AB
R882	VRS-VV3DB153J	R	15k 2W Metal Oxide	AA	R1219	RVR-M4077CEZZ	R	4.7k (B) Separation	AB
R883	VRD-RA2HD272J	R	2.7k 1/2W Carbon	AA	<b>CAPACITORS</b>				
R884	VRS-VV3DB153J	R	15k 2W Metal Oxide	AA	C1201	VCKYTV1HB102K	R	1000p 50V Ceramic	AA
R885	VRD-RA2HD272J	R	2.7k 1/2W Carbon	AA	C1202	VCKYTV1HF103Z	R	0.01 50V Ceramic	AA
R886	VRS-VV3DB153J	R	15k 2W Metal Oxide	AA	C1203	VCKYTV1HF103Z	R	0.01 50V Ceramic	AA
R887	VRD-RA2HD272J	R	2.7k 1/2W Carbon	AA	C1204	VCKYTV1HB102K	R	1000p 50V Ceramic	AA
R892	VRD-RA2BE102J	R	1k 1/8W Carbon	AA	C1206	VCKYTV1HF103Z	R	0.01 50V Ceramic	AA
R893	VRD-RA2BE102J	R	1k 1/8W Carbon	AA	C1207	VCKYTV1HB102K	R	1000p 50V Ceramic	AA
R894	VRD-RA2BE102J	R	1k 1/8W Carbon	AA	C1208	RC-FZ9104BMNJ	S	0.1 63V Mylar	AB
R896	VRD-RA2BE101J	R	100 1/8W Carbon	AA	C1209	RC-FZ9224BMNJ	S	0.22 63V Mylar	AC
R899	VRD-RA2BE101J	R	100 1/8W Carbon	AA	C1210	VCEAGA1HW225M	R	2.2 50V Electrolytic	AB
R900	VRD-RA2BE101J	R	100 1/8W Carbon	AA	C1211	VCEAGA1CW107M	R	100 16V Electrolytic	AB
R901	VRD-RA2BE101J	R	100 1/8W Carbon	AA	C1212	VCEAGA1CW107M	R	100 16V Electrolytic	AB
<b>MISCELLANEOUS PARTS</b>					C1213	VCEAGA1CW226M	R	22 16V Electrolytic	AB
P851	QPLGN0441CEZZ	R	Plug 4-pin, (H)	AB	<b>End of PWB-B</b>				
P852	QPLGN0541CEZZ	R	Plug 5-pin, (K)	AB					
Δ SC851	QSOCV0919CEZZ	R	CRT Socket	AH					

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
<b>PWB-C DUNTK7148CJV1/V0</b>					<b>RESISTORS (Continued)</b>				
<b>IF/IGR UNIT (Continued)</b>					R1204	VRS-TV1JD471J	R 470	1/16W Metal Oxide	AA
<b>CAPACITORS (Continued)</b>					R1205	VRS-TV1JD270J	R 27	1/16W Metal Oxide	AA
C1214	VCEAGA1CW226M	R 22	16V Electrolytic	AB	R1206	VRS-TV1JD151J	R 150	1/16W Metal Oxide	AA
C1216	VCKYTV1HB102K	R 1000p	50V Ceramic	AA	R1207	VRD-RA2EE221J	R 220	1/4W Carbon	AA
C1217	VCEAGA1HW225M	R 2.2	50V Electrolytic	AB	R1208	VRS-TV1JD102J	R 1k	1/16W Metal Oxide	AA
C1218	VCEAGA1HW225M	R 2.2	50V Electrolytic	AB	R1209	VRD-RA2BE121J	R 120	1/8W Carbon	AA
C1219	VCKYTV1HF103Z	R 0.01	50V Ceramic	AA	R1210	VRS-TV1JD562J	R 5.6k	1/16W Metal Oxide	AA
C1220	VCEAGA1AW476M	R 47	10V Electrolytic	AA	R1211	VRS-TV1JD222J	R 2.2k	1/16W Metal Oxide	AA
C1221	VCEAGA1CW476M	R 47	16V Electrolytic	AB	R1212	VRS-TV1JD271J	R 270	1/16W Metal Oxide	AA
C1222	VCKYTV1HF103Z	R 0.01	50V Ceramic	AA	R1213	VRS-TV1JD6R8J	R 6.8	1/16W Metal Oxide	AA
C1228	VCKYTV1HB102K	R 1000p	50V Ceramic	AA	R1214	VRS-TV1JD151J	R 150	1/16W Metal Oxide	AA
C1231	RC-FZ9334BMNJ	S 0.33	63V Mylar	AC	R1215	VRS-TV1JD561J	R 560	1/16W Metal Oxide	AA
C1233	VCCCTV1HH471J	R 470p	50V Ceramic	AA	R1216	<i>See Controls</i>			
C1308	VCEAGA1HW474M	R 0.47	50V Electrolytic	AA	R1217	VRS-TV1JD221J	R 220	1/16W Metal Oxide	AA
C1310	VCEAGA1CW107M	R 100	16V Electrolytic	AB	R1219	<i>See Controls</i>			
C1311	VCEAGA1CW107M	R 100	16V Electrolytic	AB	R1220	VRS-TV1JD471J	R 470	1/16W Metal Oxide	AA
C1330	VCKYTV1HF103Z	R 0.01	50V Ceramic	AA	R1221	VRS-TV1JD331J	R 330	1/16W Metal Oxide	AA
C1331	VCEAGA1AW227M	R 220	10V Electrolytic	AB	R1225	VRS-TV1JD561J	R 560	1/16W Metal Oxide	AA
C1332	VCKYTV1HB102K	R 1000p	50V Ceramic	AA	R1226	VRS-TV1JD561J	R 560	1/16W Metal Oxide	AA
C1334	VCCCTV1HH1R0C	R 1p	50V Ceramic	AA	R1227	VRS-TV1JD103J	R 10k	1/16W Metal Oxide	AA
C1335	VCCCTV1HH471J	R 470p	50V Ceramic	AA	R1228	VRS-TV1JD102J	R 1k	1/16W Metal Oxide	AA
C1336	VCCCTV1HH100D	R 10p	50V Ceramic	AA	R1229	VRS-TV1JD391J	R 390	1/16W Metal Oxide	AA
C1339	VCCCTV1HH270J	R 27p	50V Ceramic	AA	R1230	VRS-TV1JD682J	R 6.8k	1/16W Metal Oxide	AA
C1340	VCKYTV1HF103Z	R 0.01	50V Ceramic	AA	R1231	VRS-TV1JD223J	R 22k	1/16W Metal Oxide	AA
C1341	VCKYTV1HF103Z	R 0.01	50V Ceramic	AA	R1232	VRS-TV1JD223J	R 22k	1/16W Metal Oxide	AA
C1352	VCEAGA1HW475M	R 4.7	50V Electrolytic	AB	R1233	VRS-TV1JD102J	R 1k	1/16W Metal Oxide	AA
C1353	VCKYTV1HF104Z	R 0.1	50V Ceramic	AA	R1234	VRS-TV1JD562J	R 5.6k	1/16W Metal Oxide	AA
C1354	VCCSTV1HL681J	R 680p	50V Ceramic	AA	R1235	VRS-TV1JD101J	R 100	1/16W Metal Oxide	AA
C1355	VCCSTV1HL681J	R 680p	50V Ceramic	AA	R1305	VRS-TV1JD101J	R 100	1/16W Metal Oxide	AA
C1356	VCCSTV1HL681J	R 680p	50V Ceramic	AA	R1306	VRS-TV1JD101J	R 100	1/16W Metal Oxide	AA
C1357	VCKYTV1HB153K	R 0.015	50V Ceramic	AA	R1313	VRS-TV1JD103J	R 10k	1/16W Metal Oxide	AA
C1358	VCKYTV1HB153K	R 0.015	50V Ceramic	AA	R1314	VRS-TV1JD182J	R 1.8k	1/16W Metal Oxide	AA
C1359	VCKYTV1HB102K	R 1000p	50V Ceramic	AA	R1316	VRS-TV1JD101J	R 100	1/16W Metal Oxide	AA
C1360	VCKYTV1HB102K	R 1000p	50V Ceramic	AA	R1317	VRS-TV1JD101J	R 100	1/16W Metal Oxide	AA
C1363	VCKYTV1HB102K	R 1000p	50V Ceramic	AA	R1318	VRS-TV1JD101J	R 100	1/16W Metal Oxide	AA
C1364	VCKYTV1HB102K	R 1000p	50V Ceramic	AA	R1319	VRS-TV1JD101J	R 100	1/16W Metal Oxide	AA
C1365	VCEAGA1HW225M	R 2.2	50V Electrolytic	AB	R1331	VRS-TV1JD102J	R 1k	1/16W Metal Oxide	AA
C1366	VCKYTV1HF103Z	R 0.01	50V Ceramic	AA	R1332	VRS-TV1JD183J	R 18k	1/16W Metal Oxide	AA
C1367	VCKYTV1HF103Z	R 0.01	50V Ceramic	AA	R1333	VRS-TV1JD473J	R 47k	1/16W Metal Oxide	AA
C1368	VCEAGA1CW106M	R 10	16V Electrolytic	AA	R1343	VRS-TV1JD683J	R 68k	1/16W Metal Oxide	AA
C1369	VCCCTV1HH220J	R 22p	50V Ceramic	AA	R1345	VRS-TV1JD562J	R 5.6k	1/16W Metal Oxide	AA
C1370	VCCCTV1HH220J	R 22p	50V Ceramic	AA	R1346	VRS-TV1JD562J	R 5.6k	1/16W Metal Oxide	AA
C1371	VCCCTV1HH220J	R 22p	50V Ceramic	AA	R1347	VRS-TV1JD562J	R 5.6k	1/16W Metal Oxide	AA
C1372	VCKYTV1HF104Z	R 0.1	50V Ceramic	AA	R1348	VRS-TV1JD562J	R 5.6k	1/16W Metal Oxide	AA
C1373	VCEAGA1CW477M	R 470	16V Electrolytic	AC	R1349	VRD-RA2BE683J	R 68k	1/8W Carbon	AA
C1374	VCEAGA1CW106M	R 10	16V Electrolytic	AA	R1350	VRS-TV1JD561J	R 560	1/16W Metal Oxide	AA
C1375	VCEAGA1HW475M	R 4.7	50V Electrolytic	AB	R1351	VRD-RA2HD6R8J	R 6.8	1/2W Carbon	AA
C1376	VCEAGA1HW105M	R 1	50V Electrolytic	AC	<b>MISCELLANEOUS PARTS</b>				
<b>RESISTORS</b>					P1200	QPLGN1085CEZZ	R Plug 10-pin, (FA)		AC
R1201	VRS-TV1JD151J	R 150	1/16W Metal Oxide	AA	P1201	QPLGN1185CEZZ	R Plug 11-pin, (FB)		AC
R1202	VRS-TV1JD562J	R 5.6k	1/16W Metal Oxide	AA	P1202	QPLGN0685CEZZ	R Plug 6-pin, (FC)		AA
R1203	VRS-TV1JD222J	R 2.2k	1/16W Metal Oxide	AA	<b>— End of PWB-C —</b>				

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
<b>PWB-D DUNTK7149BMV0</b>					<b>CAPACITORS (Continued)</b>				
<b>VCJ/TEXT UNIT</b>					C2502	RC-FZ9823BMNJ	S	0.082 63V Mylar	AB
<b>INTEGRATED CIRCUITS</b>					C2601	VCKYTV1HB223K	R	0.022 50V Ceramic	AB
IC1101	RH-IX1567BMZZ	S	SDA5273	BG	C2602	RC-FZ9473BMNJ	S	0.047 63V Mylar	AC
IC2801	RH-IX1573BMZZ	S	MC4002	BA	C2603	VCKYTV1HB102K	R	1000p 50V Ceramic	AA
IC2802	RH-IX1495BMZZ	S	MC44140	AP	C2604	VCKYTV1HF473Z	R	0.047 50V Ceramic	AB
<b>TRANSISTORS</b>					C2605	VCKYTV1HF102K	S	1000p 50V Ceramic	AA
Q1101	VS2SC2412KQ-1	R	2SC2412	AA	C2801	VCKYTV1HF104Z	R	0.1 50V Ceramic	AA
Q2801	VS2SC2412KQ-1	R	2SC2412	AA	C2802	VCKYTV1HF103Z	R	0.01 50V Ceramic	AA
Q2802	VS2SC2412KQ-1	R	2SC2412	AA	C2803	VCEAGA1HW225M	R	2.2 50V Electrolytic	AB
Q2803	VS2SC2412KQ-1	R	2SC2412	AA	C2804	VCKYTV1HB392K	R	3900p 50V Ceramic	AA
<b>DIODES</b>					C2805	VCKYTV1HF103Z	R	0.01 50V Ceramic	AA
D1101	RH-DX0045BMZZ	S	1N4148	AA	C2806	VCCCTV1HH470J	R	47p 50V Ceramic	AA
D1102	RH-DX0045BMZZ	S	1N4148	AA	C2807	VCEAGA0JW107M	R	100 6.3V Electrolytic	AB
D1103	RH-DX0045BMZZ	S	1N4148	AA	C2808	VCKYTV1HF103Z	R	0.01 50V Ceramic	AA
D1104	RH-DX0045BMZZ	S	1N4148	AA	C2809	VCCCTV1HH121J	R	120p 50V Ceramic	AA
D1105	RH-DX0045BMZZ	S	1N4148	AA	C2810	VCKYTV1HF103Z	R	0.01 50V Ceramic	AA
D1106	RH-EX0403BMZZ	S	Zener Diode, 3.9V	AA	C2811	VCEAGA1CW476M	R	47 16V Electrolytic	AB
D2601	RH-DX0045BMZZ	S	1N4148	AA	C2813	VCKYTV1HF104Z	R	0.1 50V Ceramic	AA
D2602	RH-DX0045BMZZ	S	1N4148	AA	C2814	VCKYTV1HF104Z	R	0.1 50V Ceramic	AA
D2801	RH-DX0045BMZZ	S	1N4148	AA	C2815	VCKYTV1HF103Z	R	0.01 50V Ceramic	AA
<b>PACKAGED CIRCUITS</b>					C2816	VCEAGA1HW105M	R	1 50V Electrolytic	AC
X1101	RCRSB0214BMZZ	S	Crystal, 20.48 MHz	AH	C2817	VCEAGA1HW105M	R	1 50V Electrolytic	AC
X2801	RCRSB0200BMZZ	S	Crystal, 11.7MHz	AG	C2818	VCEAGA1CW476M	R	47 16V Electrolytic	AB
<b>COILS</b>					C2819	VCKYTV1HF104Z	R	0.1 50V Ceramic	AA
L1101	VP-DF3R3K0000	R	Coil, 3.3μH	AB	C2820	VCKYTV1HF104Z	R	0.1 50V Ceramic	AA
L1102	VP-DF3R3K0000	R	Coil, 3.3μH	AB	C2821	VCCCTV1HH121J	R	120p 50V Ceramic	AA
L1103	VP-DF3R3K0000	R	Coil, 3.3μH	AB	C2822	VCEAGA1CW106M	R	10 16V Electrolytic	AA
<b>CAPACITORS</b>					C2823	VCKYTV1HB102K	R	1000p 50V Ceramic	AA
C1101	RC-FZ9104BMNJ	S	0.1 63V Mylar	AB	C2824	VCKYTV1HF104Z	R	0.1 50V Ceramic	AA
C1102	VCCCTV1HH220J	R	22p 50V Ceramic	AA	C2825	VCEAGA1HW475M	R	4.7 50V Electrolytic	AB
C1103	VCCCTV1HH220J	R	22p 50V Ceramic	AA	C2826	VCKYTV1HF103Z	R	0.01 50V Ceramic	AA
C1104	VCKYTV1HF104Z	R	0.1 50V Ceramic	AA	C2827	RC-FZ9473BMNJ	S	0.047 63V Mylar	AC
C1105	VCEAGA1CW106M	R	10 16V Electrolytic	AA	C2830	VCCCTV1HH470J	R	47p 50V Ceramic	AA
C1106	VCKYTV1HF103Z	R	0.01 50V Ceramic	AA	C2831	VCCCTV1HH470J	R	47p 50V Ceramic	AA
C1107	VCEAGA1AW476M	R	47 10V Electrolytic	AA	C2832	VCCCTV1HH470J	R	47p 50V Ceramic	AA
C1108	VCEAGA0JW107M	R	100 6.3V Electrolytic	AB	C2851	VCKYTV1HF104Z	R	0.1 50V Ceramic	AA
C1109	VCKYTV1HF103Z	R	0.01 50V Ceramic	AA	C2852	VCKYTV1HF104Z	R	0.1 50V Ceramic	AA
C1110	VCKYTV1HF103Z	R	0.01 50V Ceramic	AA	C2853	VCKYTV1HF104Z	R	0.1 50V Ceramic	AA
C1111	VCCSTV1HL101J	R	100p 50V Ceramic	AA	C2901	VCKYTV1HF104Z	R	0.1 50V Ceramic	AA
C2401	VCKYTV1HF104Z	R	0.1 50V Ceramic	AA	<b>RESISTORS</b>				
C2402	VCKYTV1HF224Z	R	0.22 50V Ceramic	AC	R1101	VRS-TV1JD101J	R	100 1/16W Metal Oxide	AA
C2403	VCCCTV1HH101J	R	100p 50V Ceramic	AA	R1102	VRS-TV1JD101J	R	100 1/16W Metal Oxide	AA
C2404	VCCCTV1HH101J	R	100p 50V Ceramic	AA	R1103	VRS-TV1JD101J	R	100 1/16W Metal Oxide	AA
C2501	VCKYTV1HF103Z	R	0.01 50V Ceramic	AA	R1104	VRD-RA2BE472J	R	4.7k 1/8W Carbon	AA
					R1106	VRS-TV1JD101J	R	100 1/16W Metal Oxide	AA
					R1107	VRS-TV1JD101J	R	100 1/16W Metal Oxide	AA
					R1108	VRS-TV1JD101J	R	100 1/16W Metal Oxide	AA
					R1109	VRS-TV1JD101J	R	100 1/16W Metal Oxide	AA
					R1110	VRS-TV1JD103J	R	10k 1/16W Metal Oxide	AA
					R1111	VRD-RA2EE471J	R	470 1/4W Carbon	AA
					R1112	VRS-TV1JD104J	R	100k 1/16W Metal Oxide	AA
					R1116	VRS-TV1JD560J	R	56 1/16W Metal Oxide	AA
					R1117	VRS-TV1JD271J	R	270 1/16W Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code
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**PWB-D DUNTK7149BMV0**  
**VCJ/TEXT UNIT (Continued)**

**RESISTORS (Continued)**

R1118	VRD-RA2BE331J	R 330	1/8W	Carbon	AA
R2401	VRS-TV1JD102J	R 1k	1/16W	Metal Oxide	AA
R2402	VRS-TV1JD821J	R 820	1/16W	Metal Oxide	AA
R2501	VRS-TV1JD221J	R 220	1/16W	Metal Oxide	AA
R2601	VRS-TV1JD123J	R 12k	1/16W	Metal Oxide	AA
R2602	VRS-TV1JD473J	R 47k	1/16W	Metal Oxide	AA
R2603	VRS-TV1JD683J	R 68k	1/16W	Metal Oxide	AA
R2605	VRD-RA2BE222J	R 2.2k	1/8W	Carbon	AA
R2801	VRS-TV1JD513J	R 51k	1/16W	Metal Oxide	AA
R2802	VRS-TV1JD473J	R 47k	1/16W	Metal Oxide	AA
R2803	VRS-TV1JD683J	R 68k	1/16W	Metal Oxide	AA
R2804	VRD-RA2EE470J	R 47	1/4W	Carbon	AA
R2805	VRS-TV1JD681J	R 680	1/16W	Metal Oxide	AA
R2806	VRS-TV1JD681J	R 680	1/16W	Metal Oxide	AA
R2809	VRS-TV1JD221J	R 220	1/16W	Metal Oxide	AA
R2810	VRS-TV1JD221J	R 220	1/16W	Metal Oxide	AA
R2811	VRS-TV1JD221J	R 220	1/16W	Metal Oxide	AA
R2812	VRS-TV1JD391J	R 390	1/16W	Metal Oxide	AA
△ R2813	RR-XZ0110BMZZ	S 68	1/3W	Fuse Resistor	AB
R2814	VRS-TV1JD681J	R 680	1/16W	Metal Oxide	AA
R2815	VRD-RA2BE101J	R 100	1/8W	Carbon	AA
R2816	VRD-RA2BE101J	R 100	1/8W	Carbon	AA
R2817	VRS-TV1JD472J	R 4.7k	1/16W	Metal Oxide	AA
R2818	VRS-TV1JD472J	R 4.7k	1/16W	Metal Oxide	AA
R2819	VRS-TV1JD472J	R 4.7k	1/16W	Metal Oxide	AA
R2821	VRS-TV1JD391J	R 390	1/16W	Metal Oxide	AA
R2822	VRS-TV1JD222J	R 2.2k	1/16W	Metal Oxide	AA

**MISCELLANEOUS PARTS**

P2801	QPLGN1185CEZZ	R Plug 11-pin, (DA)	AC
P2802	QPLGN0885CEZZ	R Plug 8-pin, (DB)	AC
P2803	QPLGN0985CEZZ	R Plug 9-pin, (DC)	AC
P2804	QPLGN0541CEZZ	R Plug 5-pin, (K)	AB
SC2804	QSOCN1068BMZZ	S Socket 10-pin, (SE)	AE

— End of PWB-D —

Ref. No.	Part No.	★	Description	Code
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**MISCELLANEOUS PARTS**

△ ACC701	QACCZ2100BMSA	S	AC Cord	AR
	VSP0010PBF58A	R	Speaker, 10cm	AT
	LHLDK1501BM00	S	AC Cord Holder	AB

— End of MISCELLANEOUS PARTS —

**SUPPLIED ACCESSORIES**

**ACCESSORIES**

RRMCG1023BMSA	S	Remote Control Unit	BB
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**ACCESSORIES (NOT REPLACEMENT ITEM)**

TiNS-6271BMN0	—	Operation Manual (DV-5465S)	—
TiNS-6270BMN0	—	Operation Manual (DV-5470S)	—
UBATU0015CEZZ	—	Dry Batteries	—

— End of SUPPLIED ACCESSORIES —

**LABELS**

**(NOT REPLACEMENT ITEM)**

TLABM5361BMZZ	—	Model Label (DV-5465S)	—
TLABM5360BMZZ	—	Model Label (DV-5470S)	—
TLABV2192BMZZ	—	Bar Code Label (DV-5465S)	—
TLABV2191BMZZ	—	Bar Code Label (DV-5470S)	—
TLABK0001TAZZ	—	Carton Label	—
TLABN0130BMZZ	—	Serial No. Label	—

— End of LABELS —

**PACKING PARTS**

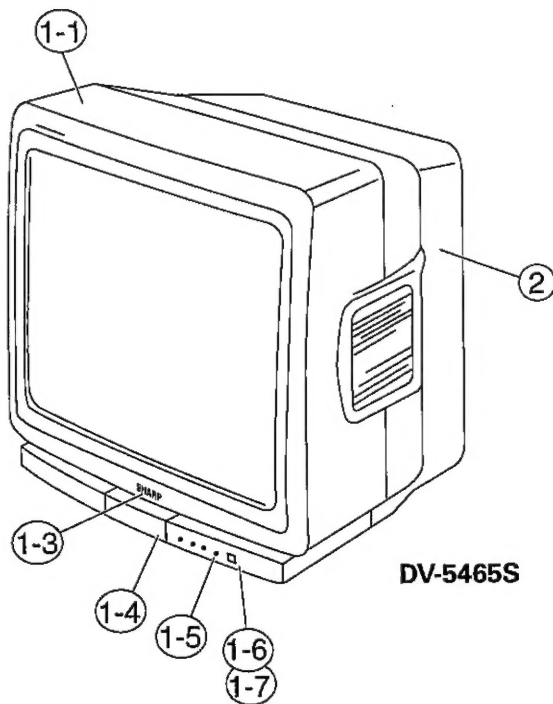
**(NOT REPLACEMENT ITEM)**

SPAKC5219BMZZ	—	Packing Case (DV-5465S)	—
SPAKC5218BMZZ	—	Packing Case (DV-5470S)	—
SSAKA1004BMZZ	—	Polystyrene Bag	—
SPAKX4022BMZZ	—	Buffer Material	—

— End of PACKING PARTS —

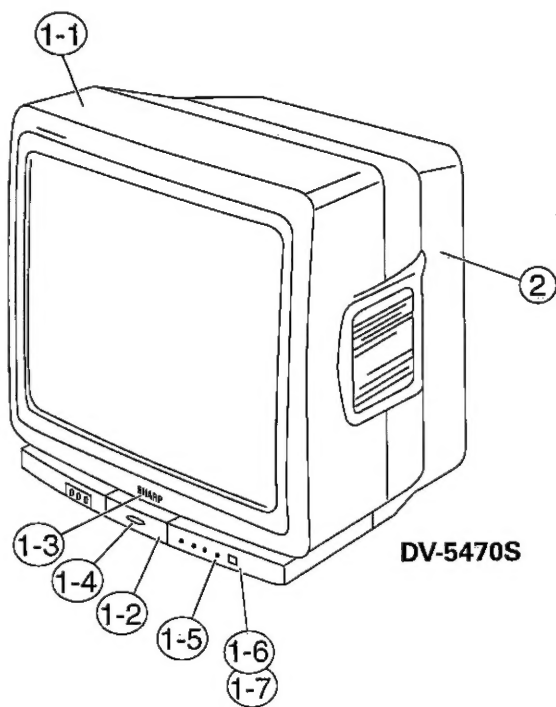
Ref. No.	Part No.	★	Description	Code
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## CABINET PARTS



### MODEL DV-5465S

1	CCABA1080BMV0	S	Front Cabinet Ass'y	BH
1-1	Not Available	-	Front Cabinet	—
1-2	GMADT1054BMSA	S	Window	AH
1-3	HBDGB3505BMSA	S	Badge, "SHARP"	AF
1-4	— Not Used —			
1-5	JBTN-1021BMSA	S	Button, Up/Down	AC
1-6	JBTN-1022BMSA	S	Button, Power	AD
1-7	MSPRC0106BMFW	S	Spring, Power Button	AA
2	GCABB1038BMKA	S	Rear Cabinet Ass'y	BE



### MODEL DV-5470S

1	CCABA1061BMV0	S	Front Cabinet Ass'y	BH
1-1	Not Available	-	Front Cabinet	—
1-2	GMADT1053BMSA	S	Window	AH
1-3	HBDGB3505BMSA	S	Badge, "SHARP"	AF
1-4	JBTN-1018BMSA	S	Button, OPC	AC
1-5	JBTN-1021BMSB	S	Button, Up/Down	AC
1-6	JBTN-1022BMSB	S	Button, Power	AD
1-7	MSPRC0106BMFW	S	Spring, Power Button	AA
2	GCABB1038BMKA	S	Rear Cabinet Ass'y	BE

— End of CABINET PARTS —

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Figure 1. Schematic representation of the experimental design. The subjects were divided into two groups: the control group and the experimental group. The control group was divided into two subgroups: the control group and the experimental group. The experimental group was divided into two subgroups: the control group and the experimental group.

**Abstract**



# SHARP